



## **Transformation Studio 2017**

### **Future Geopark Odsherred - Coast to Coast**

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*Publication date:*  
2017

*Document version*  
Også kaldet Forlagets PDF

*Citation for published version (APA):*

Tietjen, A. (red.) (2017, jun.). Transformation Studio 2017: Future Geopark Odsherred - Coast to Coast. Institut for Geovidenskab og Naturforvaltning, Københavns Universitet.



**FREMTIDENS GEOPARK FUTURE  
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# KOLOFON COLOPHON

Kursusavis Transformation Studio 2017 / Course magazine Transformation Studio 2017

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Redaktion / Editor: Anne Tietjen

Introduktion / Introduction: Anne Tietjen

Tryk / Print: TrykXperten

## TAK TIL ACKNOWLEDGEMENTS

Nina Lemkow, Jakob Walløe Hansen (Geopark Odsherred)

Poul Hvidberg-Hansen (Center for Plan, Byg og Erhverv, Odsherred Kommune)

Ditte Gammeltoft (Projektleder Fremtidens Landskab, Odsherred Kommune)

Thomas Adelskov (Borgmester, Odsherred Kommune)

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Jens Peter Simonsen (Naturstyrelsen Odsherred)

Arne Fjordgaard Andersen (Lammefjordens Grøntsagslaug)

Jørgen Stoltz (Silva Danica)

Kirsten Jensen (Odsherred Rideklub)

Jesper Knudsen (Museumsleder, Kunstmuseum Odsherred)

Jan Reitov (Sommerhusejer, Asnæs Indelukke)

Casper Overgaard (Sommerhusejer, Lyngen)

Bo Maltesen (Sommerhusejer, Korshage)

Anne Marie Vind Ludvigsen (Formanden for Korshage Grundejerforening)

Else og Michael Juncker (Sommerhusejere, Vester Lyng)

Bente Ilsøe (Sommerhusejer, Veddinge Bakker)

Kirsten Boutrup (Sommerhusejer, Veddinge Bakker)

Tove Hesse (Sommerhusejer, Veddinge Bakker)

Anna Porse Nielsen (Bestyrelsesmedlem i Geoparken og Sommerhusejer in Veddinge Bakker)

Carsten Parby (Formand i Grundejerforeningen Klitrosebugten)

Vibeke Riget (Sommerhusejer, Englandshusene )

Søren Lahn (STED by- og landskabsarkitekter)

Christian Weber Juncker (Odense Kommune)

Erik Brandt Dam (Erik Brandt Dam arkitekter)

Jens Linnet (BOGL arkitekter)

Gertrud Jørgensen, Jørgen Primdahl, Lone Søderkvist Kristensen, Patrik Karlsson (Københavns Universitet)

Transformation Studio 2017 er gennemført i samarbejde med Geopark Odsherred og Odsherred Kommune/

The Transformation Studio 2017 was conducted in conjunction with Geopark Odsherred and Odsherred Municipality.

Hvad nu hvis man kunne tage turen langs med Isefjorden ad en vandsti? Hvad hvis vådområderne omkring Dragsholm blev genskabt som et nyt besøgslandskab og en indgang til Geopark Odsherred? Og hvordan kan landskabsarkitektur formidle Sejerøbugtens dynamiske udviklingshistorie – fortid, nutid og fremtid. Her er syv bud på strategisk landskabsudvikling udarbejdet af landskabsarkitektstuderende ved Københavns Universitet. Fra februar til april 2017 har 26 studerende fra 10 lande udforsket muligheder for at udvikle kystlandskabet og sommerhusområderne i Geopark Odsherred. I dialog med kommunale planlæggere, lokale eksperter og ildsjæle har de udviklet seks projekter som søger at udfolde fremtidens *Geopark Odsherred – kyst til kyst*.

God læselyst!





What if one could travel along the Isefjord coast on a water path? What if the wetlands around Dragsholm Castle were restored as a new visitor landscape and gateway to the Geopark Odsherred? And how can landscape design communicate the development history of the Sejerø Bay – past, present and future? This volume presents strategic design work by landscape architecture students at the University of Copenhagen. From February to April 2017, 26 students from 10 countries explored possibilities for developing the coastal landscape and summerhouse areas in the Geopark Odsherred. In dialogue with municipal planners, local experts and local enthusiasts they developed seven projects that strive to unfold the future *Geopark Odsherred – Coast to Coast*.

Enjoy!



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# TITLER OG SIDETAL



## OM TRANSFORMATION STUDIO

Byudvikling arbejder i stigende grad med transformation af eksisterende byggede miljøer og landskaber igennem strategiske projekter. Spørgsmål om hvordan man kan aktivere eksisterende resurser, kvaliteter og potentialer stimulerer nye tilgange til landskabsarkitektur. Landskabsarkitekter interesserer sig mere og mere for hvad fysiske tiltag kan *gøre*, frem for hvordan de burde se ud. De udvikler byrums- og landskabsprojekter som interventioner – dvs. som midler snarere end mål og som en aktiv del i en dynamisk udvikling snarere end et færdigt resultat. Ideen er at styre udviklingen i en ønsket retning ved hjælp af målrettede fysiske og programmatisk indgreb. Samtidig kræver komplekse byudviklingsprocesser samarbejde mellem mange aktører og at forblive åbent overfor nye interesser og erkendelser i en langvarig proces med uvisse resultater.

Den strategiske projektudvikling kræver mere end formgivning i forhold til et på forhånd defineret program for et på forhånd afgrænset område. Strategisk projektudvikling inkluderer formuleringen af et designproblem og afgrænsningen af et projektområde med udgangspunkt i en analyse af tilstedeværende resurser, udfordringer og potentialer. Stedsanalysen bliver derfor det første og måske vigtigste skridt i en designproces. Dette kræver mere forskningsorienterede designmetoder uden dog at give slip på kreativiteten. Fordi enhver lokal situation er unik, socialt omstridt og konstant i forandring, findes der ingen objektiv måde at afgøre hvad der vil være den rigtige intervention. Men ved at arbejde skiftevis med analyse og projektudvikling i en sammenhængende kreativ proces, kan landskabsarkitekter udforske og sandsynliggøre lokale udviklingsmuligheder. Det er hvad vi gør i Transformation Studio.

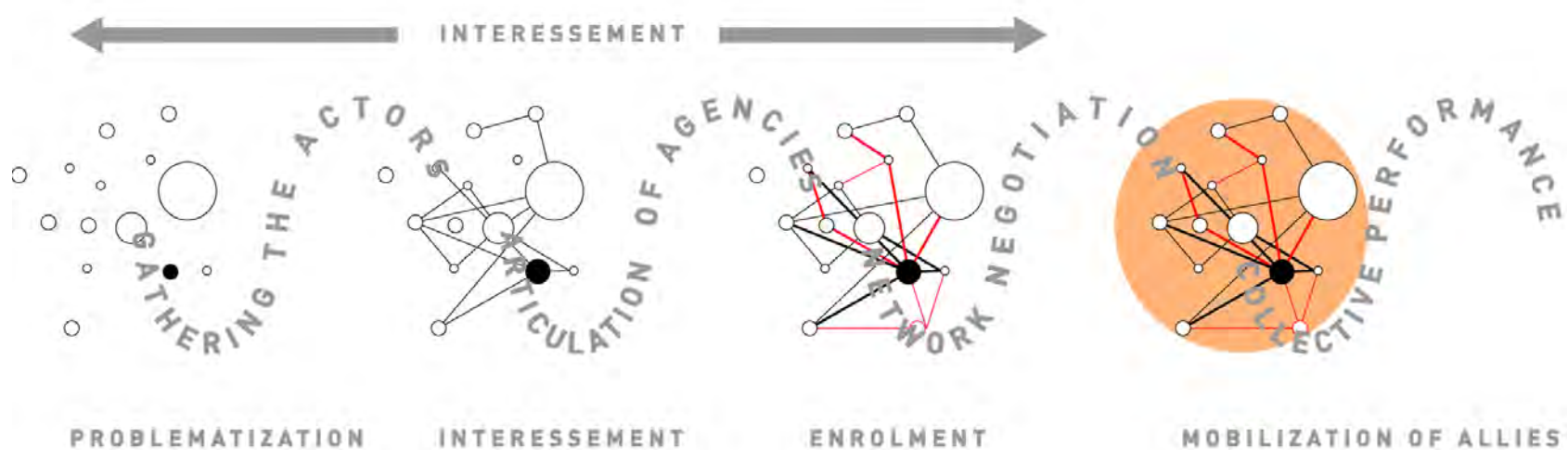
Gennem intensivt feltarbejde i et større studieområde udforsker vi aktuelle udfordringer og potentialer. På dette grundlag formulerer vi strategiske visioner og identificerer relevante områder for fysiske og programmatisk interventioner. Endelig udvikler vi strategiske projekter for udvalgte steder.

## ABOUT TRANSFORMATION STUDIO

Spatial planning increasingly focuses on the transformation of existing built environments and landscapes through strategic development projects. Questions about how to activate existing resources, qualities and potential for strategic purposes stimulate new ways of design thinking. Landscape architects are more and more interested in what a design *does* rather than how it *looks*. They are increasingly conceiving open space projects as interventions – as means rather than ends, and as an active part of dynamic development rather than fixed results. The overall idea is to steer spatial development in a desired direction through strategic physical and programmatic interventions. At the same time, complex urban development processes require collaborating with many actors and remaining open to new interests and insights.

Strategic design requires more than giving shape to an a priori defined program on an a priori delimited site. It includes the formulation of a design problem and the delimitation of areas for design intervention based on an evaluation of present resources, challenges and potential. Site analysis thus becomes the first and maybe the most important step in the design process. This requires more research-oriented design methods without, however, slipping creativity. Because each local situation is unique, socially contested and constantly changing in relation to many factors at multiple scales, there are no correct solutions, and no objective way of deciding what would be a good intervention. But when conducted as an integrated creative process, site analysis and design can explore and make local development possibilities probable. This is what we do in the Transformation Studio.

Through intensive field work in a larger study area, we investigate current challenges and development potential. On this basis, we formulate strategic development visions and identify relevant sites for design intervention. Finally, we develop strategic design interventions for selected sites.



## STRATEGISK DESIGN SOM OVERSÆTTELSE

Inspireret af Aktør-Netværk Teori forstår vi strategisk projektudvikling som en oversættelsesproces. *Oversættelse*, også kaldet en ANT-analyse, er en metode til at beskrive hvordan komplekse koblinger mellem mennesker, ting og ideer bliver bygget op for et bestemt formål<sup>1</sup>. Dette kunne for eksempel være en strategisk vision for byudvikling. Netop fordi ANT ser både mennesker, ting og ideer som forandringsagenter er den et godt udgangspunkt for at strukturere en strategisk designproces fra stedsanalyse til projektudvikling.

En oversættelsesproces har fire afgørende momenter som forbinder projektudvikling med opbygningen af de aktør-netværker som er nødvendige for at realisere projektet<sup>2</sup>. Fra formuleringen af den første vision for et givent område samt identificering af de aktører som er berørt af de formulerede mål, over afprøvningen af forskellige udviklingsmuligheder ved hjælp af kort og diagrammer, til udviklingen af et konkret projekt og endelig det øjeblik, hvor det realiserede projekt udfolder sin virkning på stedet. Inden for ANT taler man om *problematizing, tiltrækning, indrullering og mobilisering af allierede*<sup>3</sup>. I praksis er disse faser ikke klart adskilte og særligt tiltrækningsfasen, der bygger bro mellem den oprindelige problemformulering og de endelige projekter, kræver konstant at skifte mellem analyse- og designperspektiv.

Diagrammet ovenfor viser hvordan et projekt (den sorte prik) udvikler sig fra den første vision til det realiserede projekt ved at samle på menneskelige og ikke-menneskelige aktører (de sorte cirkler) indtil et samvirkende aktør-netværk er bygget op.

## STRATEGIC DESIGN AS TRANSLATION

Inspired by Actor-Network Theory (ANT) we understand strategic design as a *translation* process. Translation, also called an ANT-account, is a method to describe how complex networks of people, things, and ideas are constructed for a certain purpose<sup>1</sup>. This could, for example, be a strategic vision for landscape development. Precisely because ANT equally perceives people, things, and ideas as agents of change, we find this method helpful for structuring a strategic design process from site analysis to project development.

A translation process has four decisive moments which link project development to the construction of actor-networks that are necessary to realise the project<sup>2</sup>. From the formulation of a preliminary vision and the identification of a set of actors who are concerned with the formulated goals, over testing of different development possibilities through maps and diagrams, to the development of a concrete project, and finally the moment where the realised project unfolds its effect. ANT calls these moments: *problematization, interessement, enrolment, and mobilization of allies*<sup>3</sup>. The different moments are not clearly separated, and especially interessement activities, which link problem formulation, analysis and project development, require shifting continuously between analysis and design mode.

The diagram above shows how a project (the black dot) develops from the first vision to the realised project by assembling human and non-human actors (the black circles) until a constraining actor-network has been built.





## FREMTIDENS GEOPARK ODSHERRED - KYST TIL KYST

Odsherred Kommune ligger på Nordvestsjælland. Kommunen har knap 33.000 indbyggere på 355 km<sup>2</sup>; den største by er Nykøbing Sjælland med omkring 5.100 indbyggere. I sommerperioden har Odsherred mere end 100.000 besøgende, hvoraf de fleste bor i ét af kommunens over 26.000 sommerhuse.

På trods af at det kun er godt en times kørsel til København er Odsherred et såkaldt yderområde i Danmark. Befolkningen er aldrende, ledighedsprocenten er høj og især de unge flytter fra. Men Odsherred har også store stedbundne potentialer i form af et unikt istidslandskab, rig kulturarv og naturarv og aktive lokalsamfund. Disse stedbundne ressourcer danner udgangspunkt for kommunens største udviklingsprojekt: Geopark Odsherred.

En Geopark er “et sammenhængende geografisk område hvor steder og landskaber af international geologisk betydning forvaltes med et holistisk koncept for beskyttelse, uddannelse og bæredygtig udvikling”<sup>74</sup>. Rygraden i Geopark Odsherred er Odsherredbuerne: Vejrhøjbu, Vigbu og Højbybu, som blev skabt i den sidste istid (se kort på side 16-17). Formationerne i Odsherred er et skoleeksempel på et landskab skabt af isen<sup>5</sup>. I september 2014 blev hele kommunens areal anerkendt som UNESCO Geopark og Geopark Odsherred blev optaget i det Europæiske og det Globale Geopark Netværk (EGN/GGN).

Geopark Odsherred sigter mod at skabe økonomisk vækst, identitet og uddannelse med udgangspunkt i landskabet, kulturhistorien, kunst og lokale råvarer. For at opnå disse strategiske mål arbejder Geopark-organisationen med fysiske projekter, brandinginitiativer og events som involverer mange lokale og nationale samarbejdspartnere. Her kommer Transformation Studio ind i billedet: Opgaven i Odsherred var at udvikle landskabsprojekter for Geoparken som udfolder eksisterende stedbundne ressourcer og på denne måde at stimulere naturudvikling, (fritids)bosætning og turisme.

## FUTURE GEOPARK ODSHERRED - COAST TO COAST

Odsherred Municipality is located in north-western Zealand. The largely rural municipality covers an area of 355 km<sup>2</sup> and has close to 33,000 inhabitants; Nykøbing Sjælland is the biggest town with about 5,100 inhabitants. In the summer period over 100,000 guests stay in Odsherred, most of them in one of Odsherred's more than 26,000 summerhouses.

Although it is only a good one-hour drive to Copenhagen, Odsherred Municipality is a so-called peripheral area in Denmark. The population is ageing, unemployment rates are high and especially young people move away. But Odsherred also has strong place-based potential in the form of a unique ice age landscape, rich cultural and natural heritage, and active local communities. These place-based resources form the basis for the municipality's biggest development project: the Geopark Odsherred.

A Geopark is “a single, unified geographical area where sites and landscapes of international geological significance are managed with a holistic concept of protection, education and sustainable development”<sup>74</sup>. The backbone of the Geopark Odsherred are the Odsherred arches; Vejrhøj arch, Vig arch and Højby Triomphe, which were formed during the last ice age (see map page 16-17). The formations in Odsherred are a textbook example of a landscape created by the ice<sup>5</sup>. In September 2014, the area of the entire Odsherred Municipality was officially recognized as a UNESCO Geopark and became a member of the European and the Global Geoparks Networks (EGN/GGN).

The Geopark Odsherred aims to create economic growth, identity and education based on the landscape, cultural history, art, and produce. To achieve these strategic goals the Geopark organization works with physical projects, branding initiatives and events involving many local and national cooperation partners. This is where the Transformation Studio comes into the picture: The task was to develop landscape projects for the Geopark, which unfold existing place-based resources in order to stimulate positive development of nature, (recreational) settlement and tourism. We focused on the coast and, specifically, on Odsherred's many summerhouse areas.



## Gentænkning af sommerhusområderne

Odsherred er den kommune med flest sommerhuse i Danmark. Sommerhusene ligger først og fremmest i sommerhusområder ved den 157 km lange kystlinje. Livet ved kysten er domineret af sommerhusturister, mens de fastboende bor i landsbyerne i indlandet: turister og borgere lever hver i deres eget domæne.

Geopark projektet er en mulighed for at gentænke sommerhusområderne – for at forbinde kysten og indlandet, turister og fastboende på nye måder og for at gentænke ansvarligheder og følelser af ejerskab for landskabet, for eksempel ved at invitere sommerhusejerne til at bidrage til forvaltningen og udviklingen af landskabet omkring Skamlebæk Radiostation og Disbjerg. Hvordan kan livet ved kysten blive en ressource for udviklingen af Geoparken og omvendt?

I dialog med kommunens planchef og Geoparkens projektleder har vi identificeret følgende udviklingstendenser, udfordringer og potentialer for sommerhusområder i Odsherred:

- Flere og flere sommerhuse bliver brugt som helårsboliger. På lang sigt kommer det til at forandre områdernes karakter. Det kommer også til at skabe nye udfordringer for den kommunale service, for eksempel i forhold til sundhed.
- En stor beboerudskiftning ligger forude når de nuværende ældre beboere dør og langt fra alle huse vil finde nye ejere.
- Nogle områder fremstår nedslidte og mange sommerhuse lever ikke op til nutidig komfort og energistandarder.
- Mange steder er der planter skov for at “gemme” sommerhusene, men skovbeplantningen passer ikke nødvendigvis landskabets karakter og naturgrundlag.
- Der er en stor variation i sommerhuslandskaberne og deres arkitektoniske og kulturhistoriske værdier er en værdifuld udviklingsressource.
- Mange sommerhusejere har en stærk tilknytning til stedet; det er en god basis for at engagere dem i udviklingen og forvaltningen af sommerhuslandskabet.

## Rethinking summerhouse landscapes

Odsherred is the municipality with most summerhouses in Denmark. Most of the summerhouses are located in summerhouse areas along the 157 km-long coastline. Coastal living in Odsherred is thus dominated by visitors, while the permanent residents live in the villages and small towns in the inland.

The Geopark project is an opportunity to rethink the summerhouse landscape – to better connect coast and inland, recreational and permanent residents and to stimulate new responsibilities and feelings of ownership for the landscape, for example by inviting summerhouse owners to participate in the management and development of the landscape – as it is already happening with the Future Landscape project around Skamlebæk radio station and Disbjerg. How can coastal living become an asset for developing the Geopark and vice versa?

In dialogue with the head of the municipal planning department and the project manager of the Geopark, we identified the following transformation tendencies, challenges and potentials for summerhouse areas in Odsherred:

- More and more summerhouses are being used as permanent residences. In the long run this will change the character of the summerhouse areas, while it will create new challenges for the municipality regarding service supply, e.g. health care.
- A big occupant replacement is forthcoming when the current summerhouse population dies and not all summerhouses will find new owners.
- Some areas are worn out and many summerhouses do not live up to contemporary comfort and energy standards.
- In many places, forests have been planted to “hide” the summerhouses, but the forest plantations and the chosen trees do not necessarily fit the landscape character and the natural basis.
- The great variety of summerhouse landscapes and their architectural and cultural historical values is a great development resource.
- The summerhouse owners’ place attachment is a good basis for engaging them in the development and management of the summerhouse landscape.

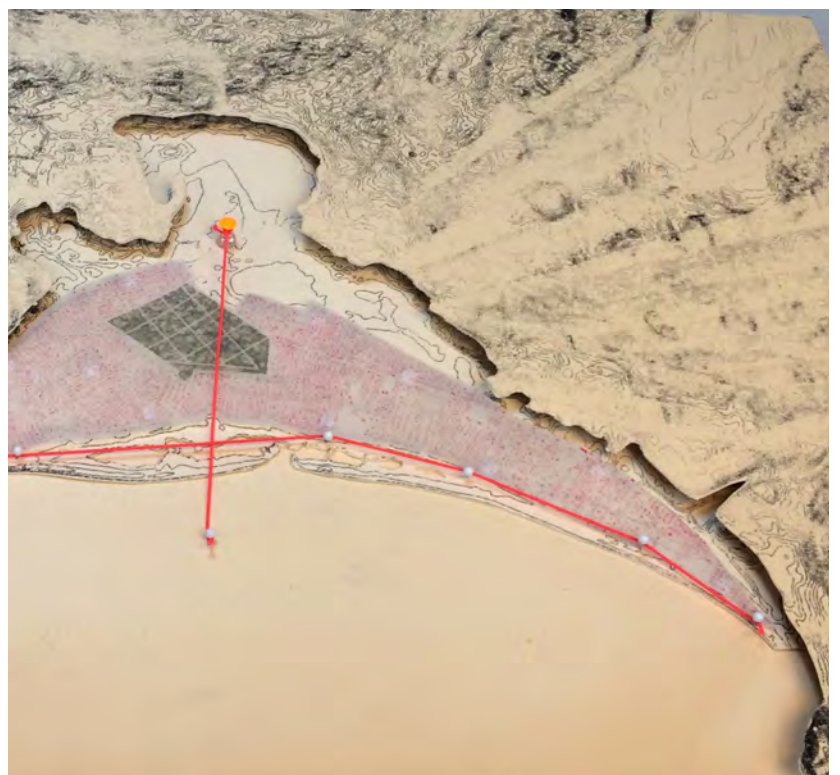
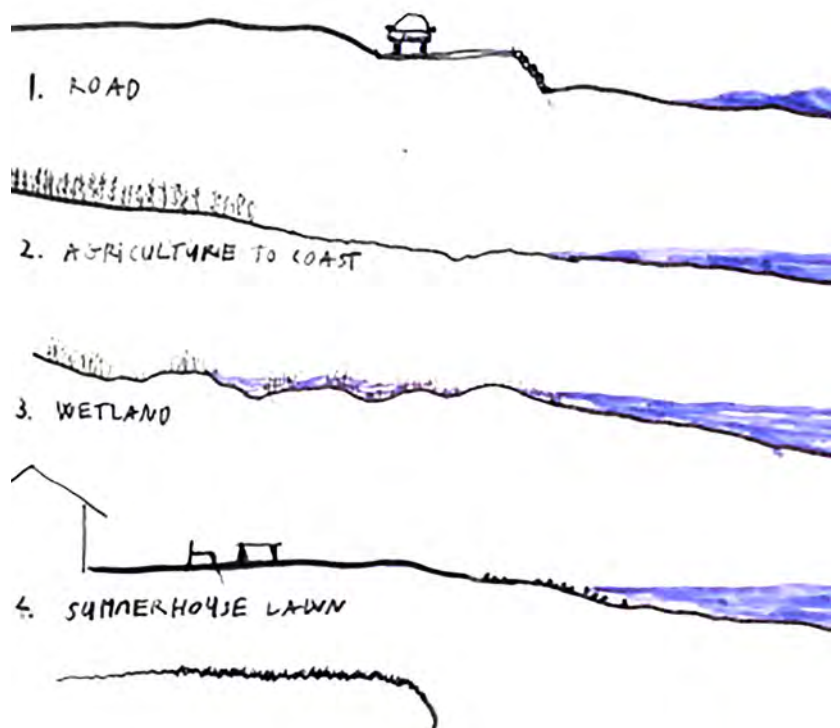














## HVORDAN VI HAR ARBEJDET

Med afsæt i Geopark projektet udforskede de studerende muligheder for nye strategiske landskabsprojekter ved kysten og i sommerhusområder. Aktuelle landskabsudviklingsprojekter, lokal viden om stedbundne kvaliteter, ressourcer og potentialer og – ikke mindst – de mennesker som allerede er engageret i udviklingen af Geoparken eller af sommerhusområder inspirerede de studerende til nye projektideer.

En uges intensivt feltarbejde skabte basis for projektudviklingen. På vores første dag fik vi en guidet tur gennem Odsherred af Geoparkens projektleder. Vi besøgte solvognens findested i Trundholm Mose, kørte gennem endeløse sommerhusområder ved Sejerøbugten, udforskede GeoKids shelter i Veddinge bakker og det megalitiske gravsted på Plejerupdyssen og nød udsigten fra Esterhøj over Højdyrgstien.

Gennem de næste to dage udførte de studerende tre tematiske *transects*<sup>6</sup>. I små grupper undersøgte de en rute langs henholdsvis nordkysten mod Kattegat, vestkysten med Sejerøbugten og Nexeløbugten eller østkysten mod Isefjorden. De bevægede sig rundt i bil og til fods, gjorde iagttagelser og førte samtaler om stedet på stedet<sup>6</sup>.

Formålet med feltarbejdet var at udvikle første ideer og at identificere katalytiske situationer for nye landskabsprojekter, dvs. situationer hvor fysiske tiltag ville kunne stimulere positiv udvikling af natur, (fritids)bosætning eller turisme. Til dette formål skulle de studerende rette opmærksomheden mod tegn for forandringer i landskabet, for eksempel i form af nylige fysiske forandringer, nye aktiviteter og anvendelser og ideer og ønsker om forandringer.

Hver gruppe lavede to til tre på forhånd arrangerede interviews med lokale aktører i Geopark-projekter eller relaterede initiativer. Derudover lavede de spontane interviews med folk de mødte 'på farten'. I de spontane interviews brugte de studerende et kort over Odsherred for at tale med folk om deres daglige ruter, udfordringer og glæder i hverdagen og steder som betød noget særligt for dem. Mens de arrangerede interviews gav rig information om stedbundne kvaliteter, ressourcer og aktuelle forandringer, bidrog de spontane interviews med indsigt i mange forskellige menneskers hverdagsruter og rutiner.

Observationer langs ruten fokuserede på tre typer situationer i alle skalaer: (1) *Inside/outside*, dvs. rumlige overgange fra et sted eller landskab til et andet; (2) *front/back*, dvs. aktiviteter som forgår 'bag scenen'; og (3) *above/below*; dvs. hvordan infrastruktur- og servicenetværker, som ofte er usynlige 'nedenunder' en situation, påvirker de synlige aktiviteter 'på overfladen', for eksempel er et busstoppested del af et større eller mindre transportsystem som forbinder et sted til andre steder.

## HOW WE WORKED

With a starting point in the Geopark project and a thematic focus on the summerhouse landscape the students explored opportunities for new strategic landscape projects. Current landscape development projects, local knowledge about place-based qualities, resources and potential, and – not least – talking to people who already are engaged in the development of the Geopark or local summerhouse areas inspired the students to develop new project ideas.

A week of intensive field work formed the basis for project development. On the first day, we were given a guided tour of Odsherred by the Geopark project manager. We visited the finding place of the Sun Chariot in the Trundholm bog, drove through sheer endless summerhouse areas along the Sejerø Bay, explored the GeoKids shelter in the Veddinge hills and the megalithic tomb at Plejerupdyssen, and enjoyed the view over the ridge path from Esterhøj.

The next two days the students conducted thematic *transects*<sup>6</sup>; in small groups they investigated locations along the north coast towards the Kattegat, the west coast with Sejerø and Nexelø Bay and the east coast towards the Isefjord. They moved around by car and on foot, made observations and had onsite conversations about the landscape. The aim of these transects was to generate first design visions and to identify catalytic situations for new landscape projects, i.e. situations where physical interventions are likely to stimulate positive development of nature, (recreational) settlement or tourism in relation to the Geopark Odsherred. To this end, we asked the students to look for signs of landscape change such as recent physical changes, new activities and uses, and ideas and desires for future development.

Each student group conducted two to three a priori arranged interviews with local actors in Geopark projects or related initiatives. In addition, each group conducted several spontaneous interviews with people they met 'on the road'. These spontaneous conversations were structured around a map of Odsherred and explored people's everyday life routes, challenges and pleasures, and the places that meant something special to them. While the arranged interviews provided rich information on place-based qualities, resources and ongoing transformations, the spontaneous interviews contributed with insight into a variety of people's multi-faceted everyday life routes and routines.

Observations along the route focused on three types of situation on all scales: (1) *Inside/outside*, i.e. spatial transitions from one place or landscape to another; (2) *front/back*, i.e. usages and activities that occur 'behind the scenes'; and (3) *above/below*; i.e. how infrastructural networks and services, which are often invisible 'below' a situation, affect usages and activities 'above', e.g. a bus stop is part of a larger transportation network which creates connections to other places.







Med udgangspunkt i deres feltarbejde lavede de studerende fælles evalueringskort for hver kyststrækning; de identificerede katalytiske situationer og formulerede første udviklingsvisioner og projektideer, som vi diskuterede med Geopark projektlederen og to kommunale planlæggere. De sidste to dage i felten brugte de studerende på mere fokuserede stedsundersøgelser med udgangspunkt i deres første projektideer.

Tilbage ved tegnebordene i København, udviklede de studerende deres indsigter fra feltarbejdet til mere specifikke udviklingsvisioner, afklarede projektområder og definerede konkrete tiltag. De sidste fire uger blev brugt på at udarbejde et strategisk projektforslag ledsaget af ugentligt feedback fra gæstekritiker.

Flere studerende holdt kontakt med de lokale aktører som de havde talt med i Odsherred. Andre tog kontakt til nye lokale eksperter eller aktører undervejs. På denne måde blev de studerende ved med at indarbejde ny input i deres projekter helt frem til afleveringen.

## SYV STRATEGISKE PROJEKTER

De syv projekter der kom ud af kurset spænder vidt fra ideer små interventioner i udvalgte sommerhusområder til en ny vandsti hele vejen langs Isefjorden i Odsherred.

Flere projekter lægger sig tydeligt i forlængelse af aktuelle Geopark projekter og initiativer. Samtidig fremsætter alle projekter nye ideer og indsigter – de foreslår nye programmer, bringer nye steder i spil og anbefaler nye samarbejdsnetværker. Først og fremmest skaber de nye billeder af mulige fremtidige landskaber, som vi håber, kan være til inspiration for alle de lokale aktører som kommer til at arbejde med udviklingen af fremtidens Geopark Odsherred – Kyst til Kyst.

<sup>1</sup> LATOUR, B., 2005. *Reassembling the Social: An Introduction to Actor-Network-Theory*. Oxford: Oxford University Press.

<sup>2</sup> TIETJEN, A., 2016. Found in translation: Working with Actor-Network Theory in Design Education. Forthcoming in: *Journal of Nordic Architectural Research*.

<sup>3</sup> CALLON, M., 1986. Some Elements of a Sociology of Translation: Domestication of the Scallops and the Fishermen of St. Brieuc Bay. In: LAW, J. (ed.), *Power, Action and Belief: A New Sociology of Knowledge?*, pp. 196-233.

<sup>4</sup> <http://www.unesco.org/new/en/natural-sciences/environment/earth-sciences/global-geoparks/>

<sup>5</sup> [www.geoparkodsherred.dk](http://www.geoparkodsherred.dk)

<sup>6</sup> Vi har fulgt metoden beskrevet af BAZAR URBAIN, CONTREPOINT and CHRONOS, Z., 2013. *Amiens 2030: Le quotidien en projet*. Bazar urbain éditions.

Based on their fieldwork the students made common evaluation maps for the north, west and east coast, identified catalytic situations, and formulated first development visions and project ideas, which we then discussed with the Geopark project manager and the head of the municipal planning department. The last two days of fieldwork were spent with focused site evaluation based on the students' first project ideas.

Back at the drawing boards in Copenhagen, the students developed their fieldwork findings into more specified design visions, delimited sites for intervention, and defined concrete interventions. Through the last four weeks the students elaborated a strategic landscape project guided by regular feedback from guest critics.

Several students stayed in touch with local actors they had interviewed in Odsherred throughout the course. Others contacted new local actors and experts in the process. In this way, the students kept introducing new insights into their projects until the final hand-in.

## SEVEN STRATEGIC PROJECTS

The seven strategic projects which resulted from the course represent a wide range of design ideas for strategic landscape development ranging from small-scale interventions in selected summerhouse areas to a water path all the way along the Isefjord coast.

Several projects clearly expand on existing Geopark projects and initiatives. At the same time, all the projects present new original ideas and insights – they bring in new programmatic ideas, identify new locations for landscape development, and propose new collaboration networks. First and foremost, they create new images of possible future landscapes, which hopefully will be an inspiration for all the local actors who are going to work with the development of Geopark Odsherred – Coast to Coast.

<sup>1</sup> LATOUR, B., 2005. *Reassembling the Social: An Introduction to Actor-Network-Theory*. Oxford: Oxford University Press.

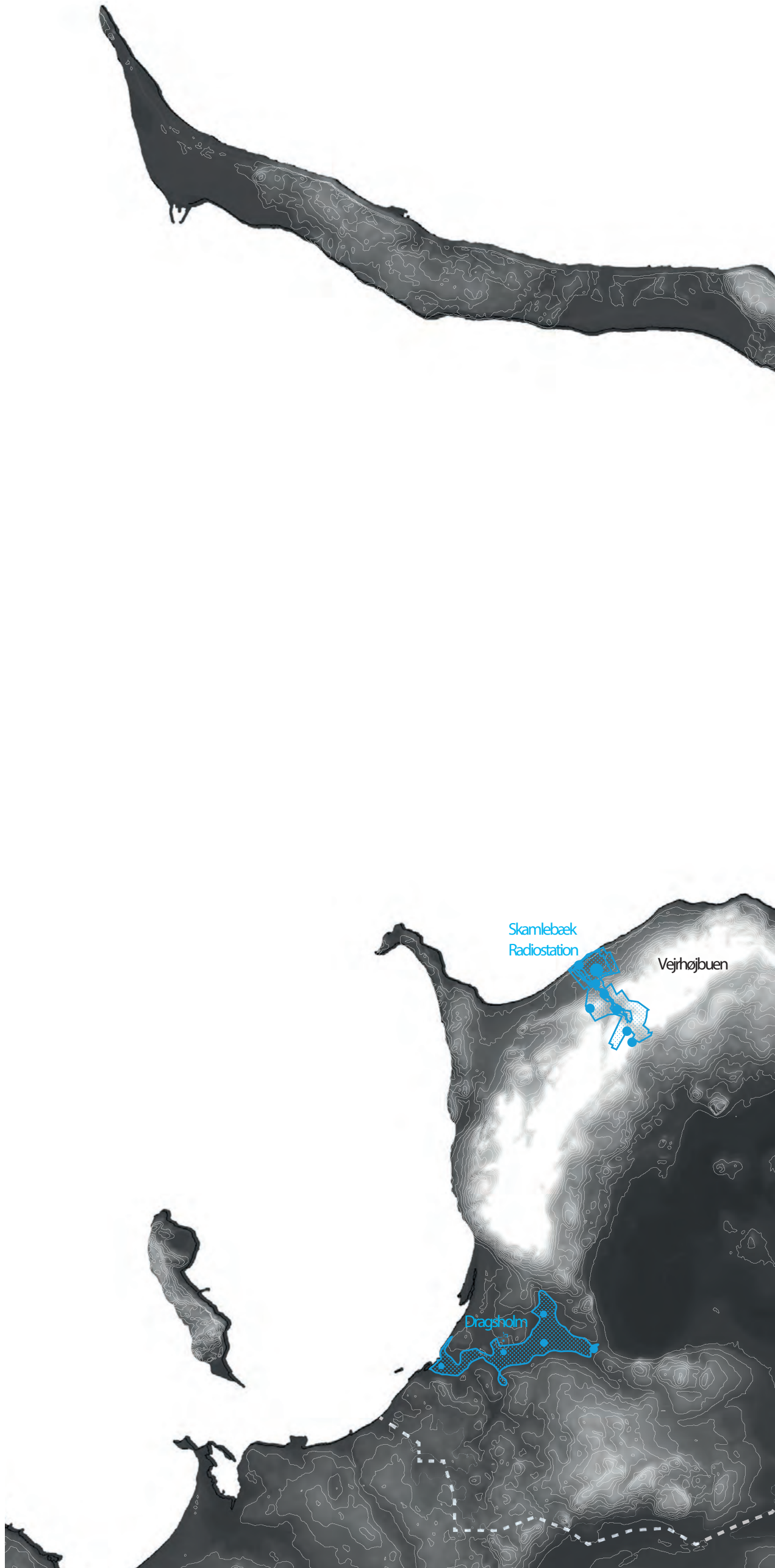
<sup>2</sup> TIETJEN, A., 2016. Found in translation: Working with Actor-Network Theory in Design Education. Forthcoming in: *Journal of Nordic Architectural Research*.

<sup>3</sup> CALLON, M., 1986. Some Elements of a Sociology of Translation: Domestication of the Scallops and the Fishermen of St. Brieuc Bay. In: LAW, J. (ed.), *Power, Action and Belief: A New Sociology of Knowledge?*, pp. 196-233.

<sup>4</sup> <http://www.unesco.org/new/en/natural-sciences/environment/earth-sciences/global-geoparks/>

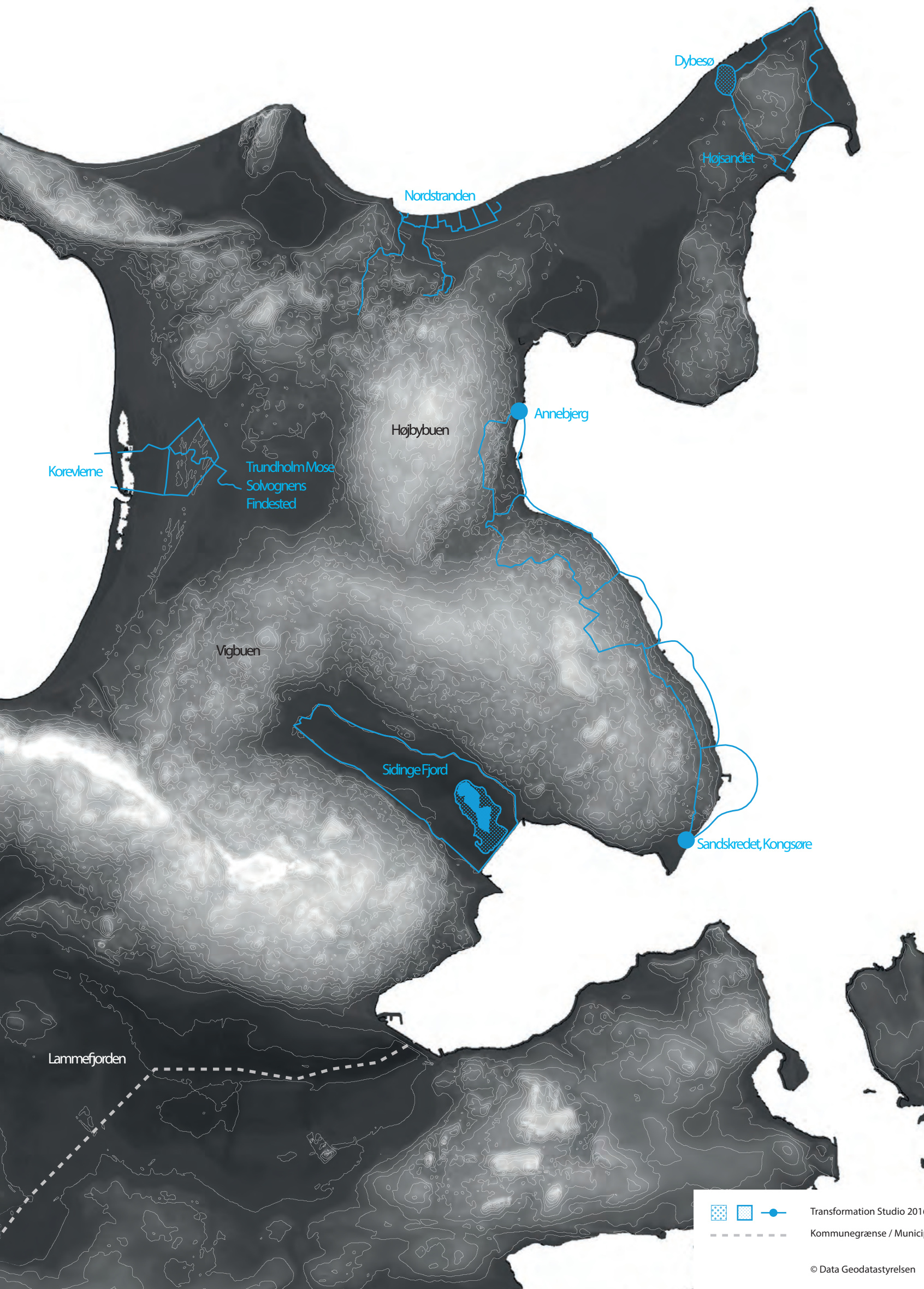
<sup>5</sup> [www.geoparkodsherred.dk](http://www.geoparkodsherred.dk)

<sup>6</sup> We followed the method described by BAZAR URBAIN, CONTREPOINT and CHRONOS, Z., 2013. *Amiens 2030: Le quotidien en projet*. Bazar urbain éditions.





2,5 km



Transformation Studio 2016

Kommunegrænse / Municipal border

© Data Geodatastyrelsen



# THE UNTOLD STORY 0

## PAST PRESENT FUTURE





# F SEJERØ BAY



CRISTIAN UMAÑA  
RIE JUHL ARNDT  
RIKKE MARIE AASKOV  
TERESE SOFIE HJORTH RASMUSSEN

## FORTÆLLINGEN OM SEJERØ BUGT // FORTID - NUTID - FREMTID

Dette projekt foreslår en ny Geopark oplevelsesrute, der vil linke to store Geo-sites i Sejerø Bugt - fundstedet for Solvognen i Trundholm mose og de dynamiske strande og laguner ved Korevlerne. At gå denne 5 km rute vil give unikke landskabsoplevelser gennem 10.000 års geologisk historie og mere end 3.000 års kulturel historie fra Istiden gennem Bronzealderen og til den moderne tids sommerhus landskaber og fremtidens kystlandskaber.

Etablering af denne nye rute er vigtig for Sejerø Bugt området, da den i dag står overfor en alvorlig frakobling fra Geopark Odsherred. Odsherreds landskab er karakteriseret af terræn udformet gennem Istiden og består primært af to hovedtræk: morænebakkerne som former Odsherred buerne, og de dynamiske kystslette områder. Sejerø Bugten passer perfekt på denne tidslinje - da den både indeholder den største kystslette indrammet af den ældste bue (Højby Buen) mod øst og den stadig ekspanderende kystlinje mod vest, såvel som to store Geo-sites.

Udover den stærke geologiske og historiske bånd til Odsherred regionen, mangler Sejerø Bugten stadig en forbindelse til Geoparkens program og effektive bevægelsesmønstre. Den 12 km lange kyst indeholder omkring 15.000 sommerhuse, der virker som en barriere for den øst-vest gående mobilitet mellem Geo-sitesene, og skaber en diskontinuitet i tidslinjen. Manglen på aktiviteter og programmering for området ses tydeligt ved Geopark Festivalen, hvor events er spredt ud over hele Odsherred kommune bortset fra området ved Sejerø Bugten. For at omdanne dette område til værende en

del af Geopark Odsherred, er det nødvendigt at etablere en klar rute, som ikke kun bruges til at transportere brugerne gennem området, men også til at afsløre den fascinerende historie.

Den nye forbindelse mellem de to flagskibs Geo-sites leder brugerne på en rejse gennem Sejerø Bugten for at afsløre den underliggende historie. En ny fodgænger og cykelbro, startende ved Fundstedet, går hen over den meget trafikerede vej A21 - annoncerer fundstedet for Solvognen og giver fodgængerne et unik syn over den drænedes Trundholm mose. En hævet sti vil lede brugerne over vådområdet til Ellinge Indhegning, hvor tilføjelsen af et tårn og en trætop sti giver brugerne mulighed for at opleve skoven både på jorden, i trækronerne og over trætoppene. Udsigten fra tårnet giver en nyt perspektiv af området i en større skala, hvilket giver brugerne mulighed for at se hvordan Istiden har udskåret landskabet og værdsætte Korevlerne og den udviklende kystlinje. På Korevlerne, vil brugerne have mulighed for at nyde den varierende kyst når de går hen over lagunerne gennem fortidens klitter. To nye strandbroer ved kysten giver forskellige oplevelser: en belyser de nutidige variationer af kystlinjen ved at interagere med de nye klitformationer, og den anden indrammer historien om fremtidig kystlinje ekspansioner.

Ved effektivt at linke de to Geo-sites, og aktivere landskabet imellem dem, begynder vi at afsløre historien om Sejerø Bugt, afdække dens rige natur og kulturelle historie, og sætte scenen for et vigtigt knudepunkt for aktivitet i fremtiden.

## THE UNTOLD STORY OF SEJERØ BAY // PAST - PRESENT - FUTURE

This project proposes a new Geopark experience trail that will link two major Geo-sites in Sejerø Bay - the finding place of the Sun Chariot in Trundholm bog and the dynamic beaches and lagoons of the Cow Reefs. Walking this 5-km trail will offer unique landscape experiences crossing 10,000 years of geological history and more than 3,000 years of cultural history from the Ice Age through the Bronze Age, into modern time summerhouse landscapes and future coastal formations yet to come.

Establishing this new route is crucial to the Sejerø Bay area because it currently faces a severe disconnect from the Geopark Odsherred. The Odsherred landscape is characterized by terrain crafted through the Ice Age to form two main features: the moraine hills that form the Odsherred arches, and the dynamic coastal plain regions. Sejerø Bay fits directly into this storyline-it is home to the largest coastal plain, framed by the oldest arch (Højby Buen) to the east and the expanding coastline to the west, as well as two major Geo-sites.

Despite its strong geological and cultural ties to the Odsherred region, the Sejerø Bay area still lacks a connection to Geopark programing and efficient channels of movement. The 12-km bay contains approximately 15,000 summerhouses which act as a barrier to east-west mobility between the Geo-sites, causing a discontinuity in the storyline. The lack of programing in this area becomes evident during the Geopark Festival, where events are widespread throughout the Odsherred Municipality except for in the Sejerø Bay area.

In order to transform this region into an active part of Geopark Odsherred, it is necessary to establish a clear route that works not only for the movement of users, but also to reveal its fascinating story.

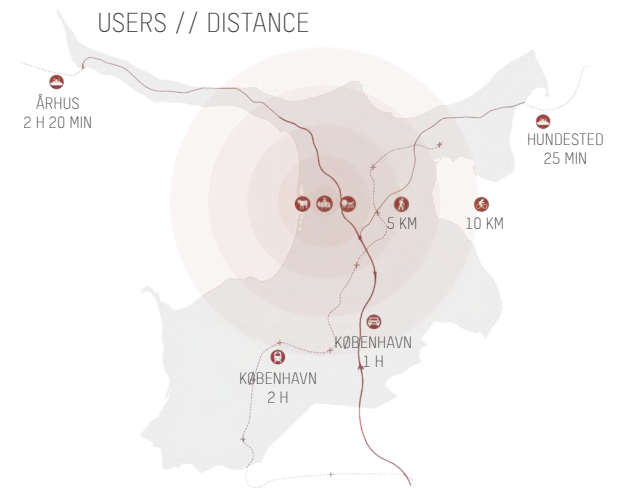
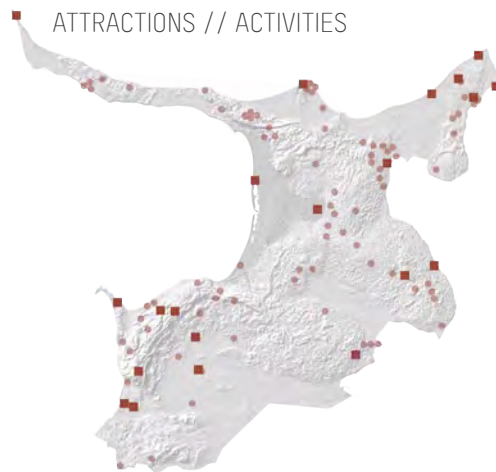
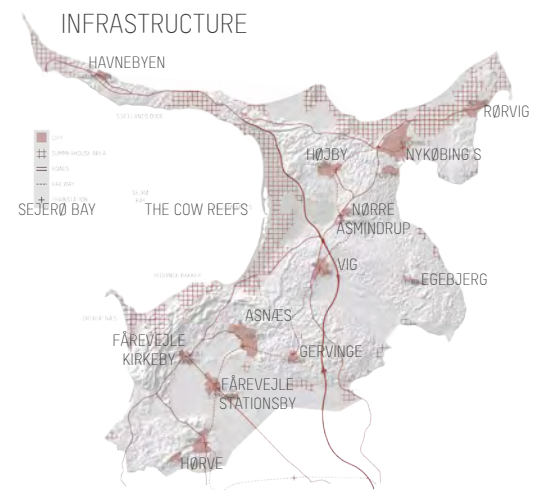
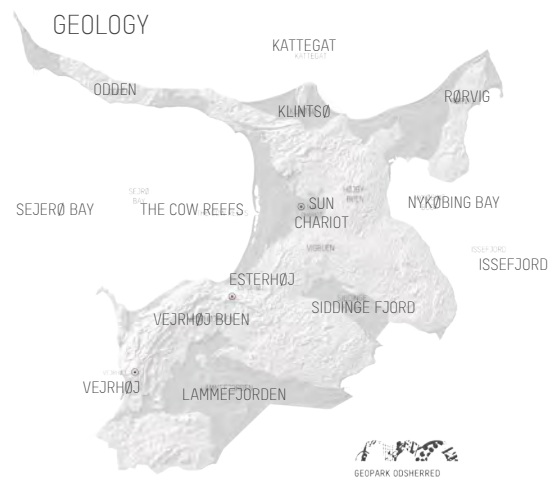
The new connection between the two flagship Geo-sites leads users on a journey through the Sejerø Bay region to reveal its underlying story. A new footbridge, originating at Fundstedet, leads across the highly-trafficked Route A21 - announcing the finding place of the Sun Chariot and offering pedestrians a unique view over the reclaimed Trundholm Bog. A raised path will bring users across the wetland to Ellinge Indhegning, where the addition of a tower and a tree top walk will allow users to experience the forest on the ground, in the canopy, and above the trees. The view from the tower provides a new large scale perspective of the area, allowing users to see how the Ice Age carved the landscape and appreciate the Cow Reefs and the developing coastline. At the Cow Reefs, users will have the opportunity to enjoy the varied coast as they walk over the lagoons and through dunes of the past. Two new piers at the coast present different experiences: One highlights the present variations of the coastline by interacting with new dunes, and the other frames the story of future coastline expansion.

By effectively linking the two Geo-sites, and activating the space in between, we begin to reveal the story of Sejerø Bay, uncovering its rich natural and cultural history, and setting the stage for a thriving hub of activity in the future.

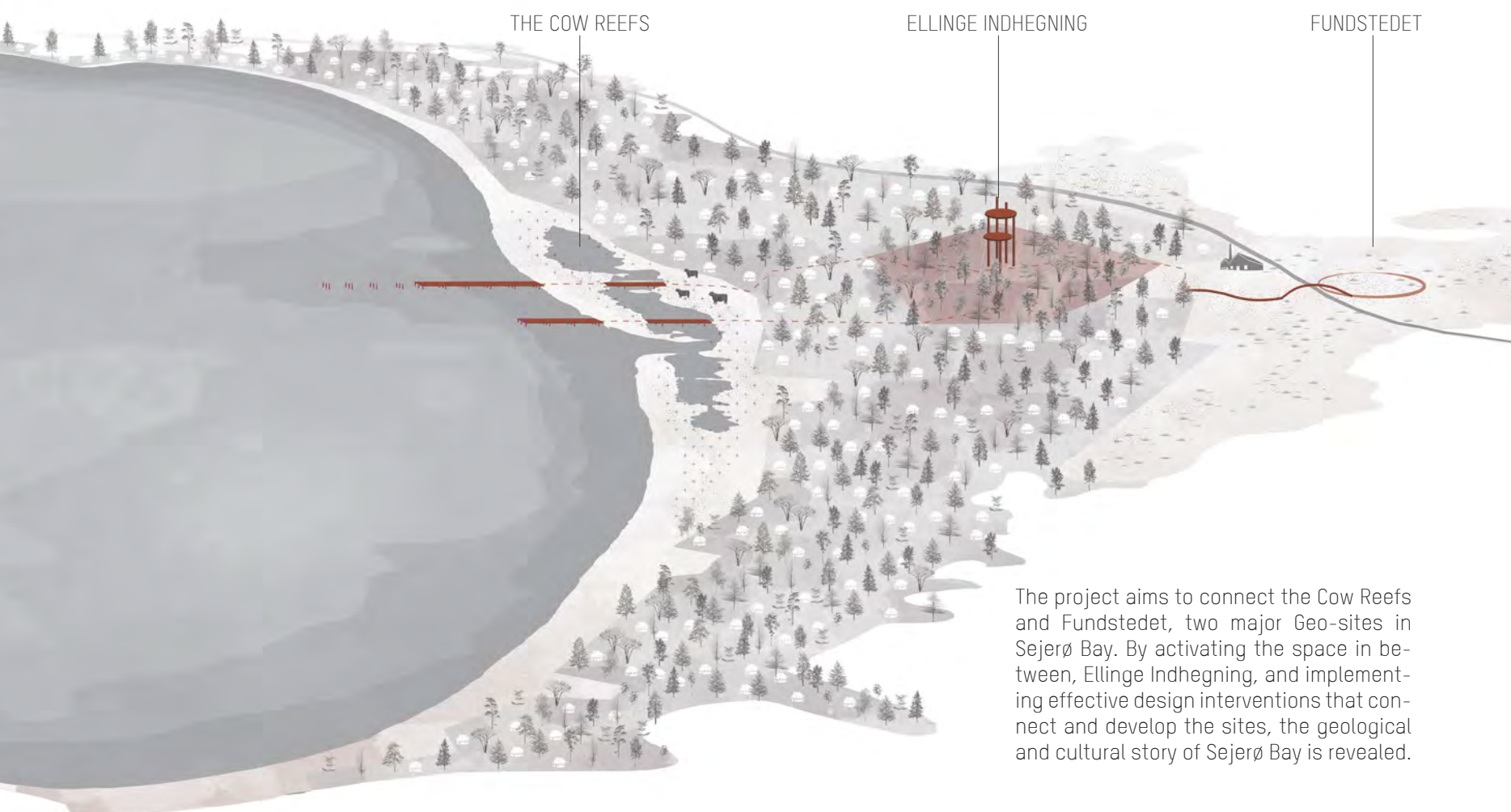




## ODSHERRED DENMARK'S FIRST GEOPARK



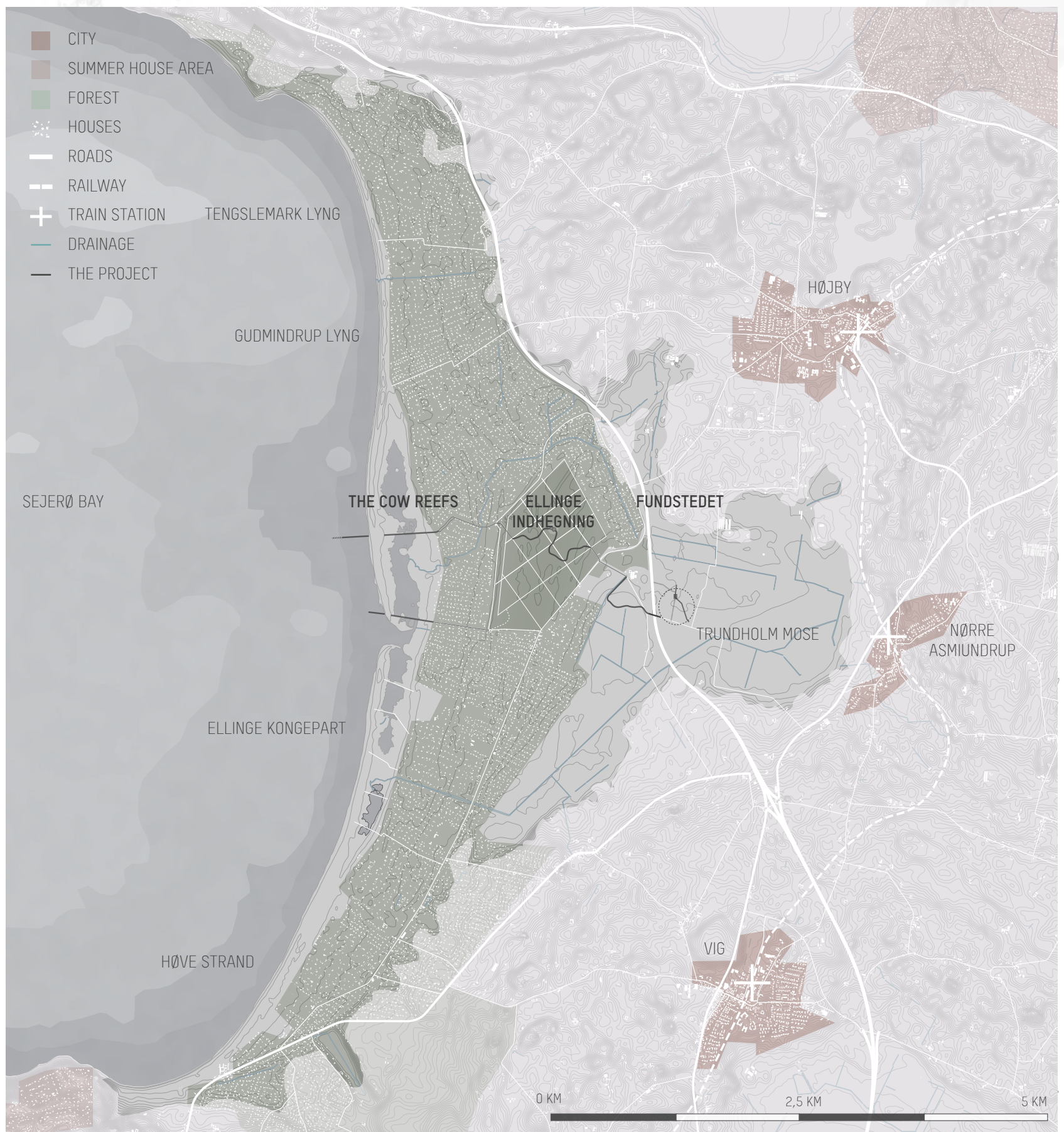
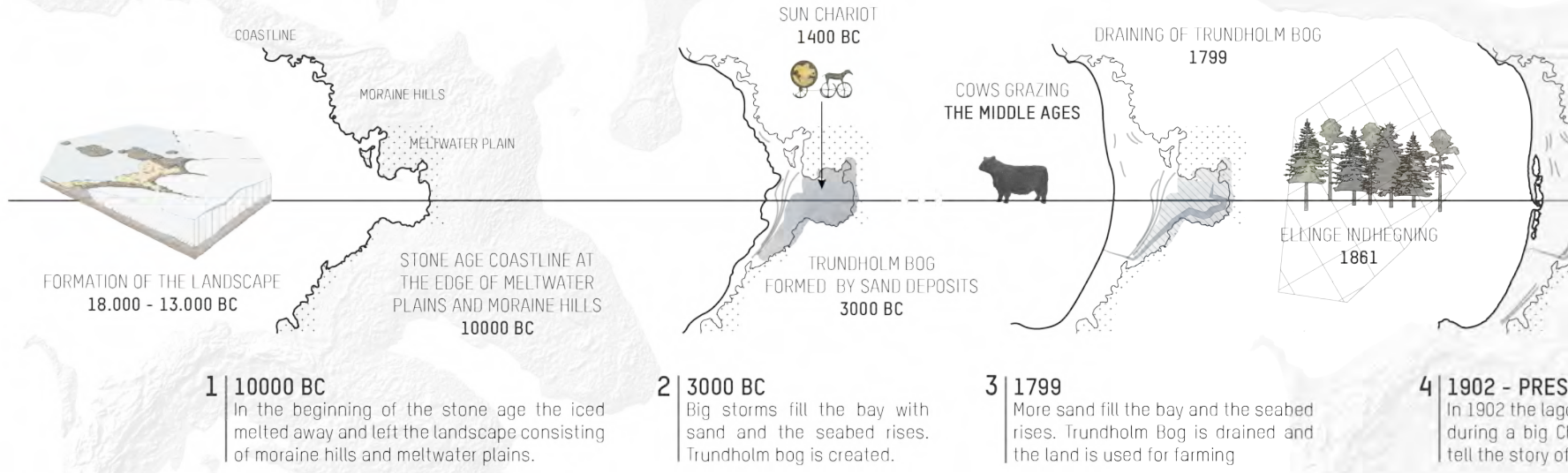
### VISION



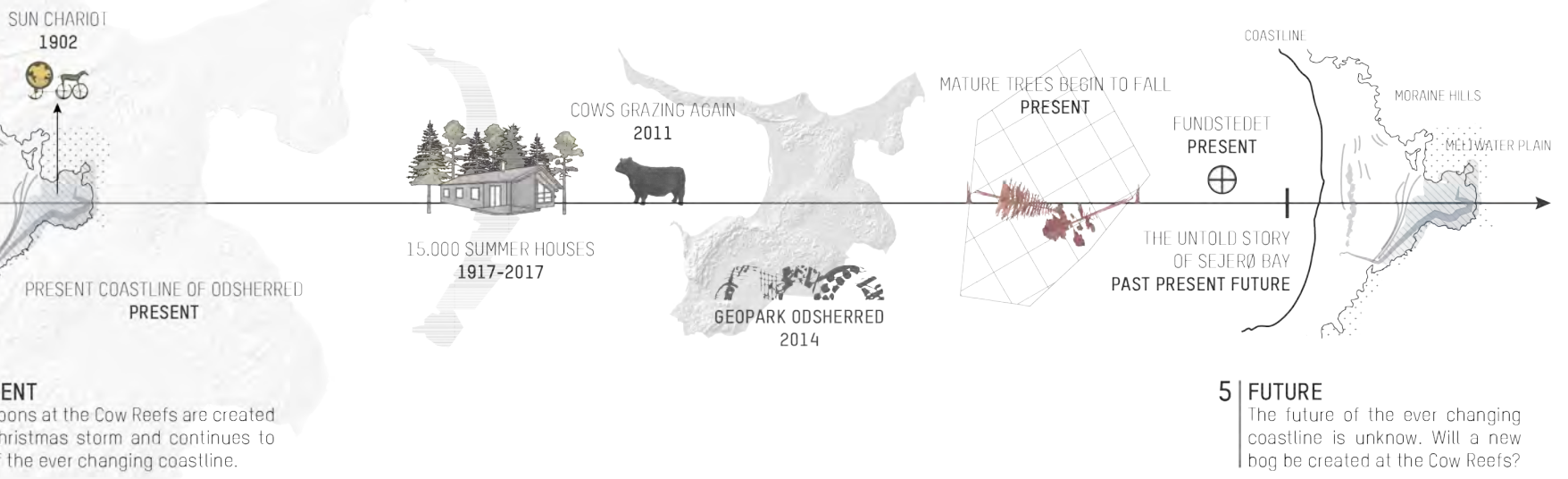
The project aims to connect the Cow Reefs and Fundstedet, two major Geo-sites in Sejerø Bay. By activating the space in between, Ellinge Indhegning, and implementing effective design interventions that connect and develop the sites, the geological and cultural story of Sejerø Bay is revealed.



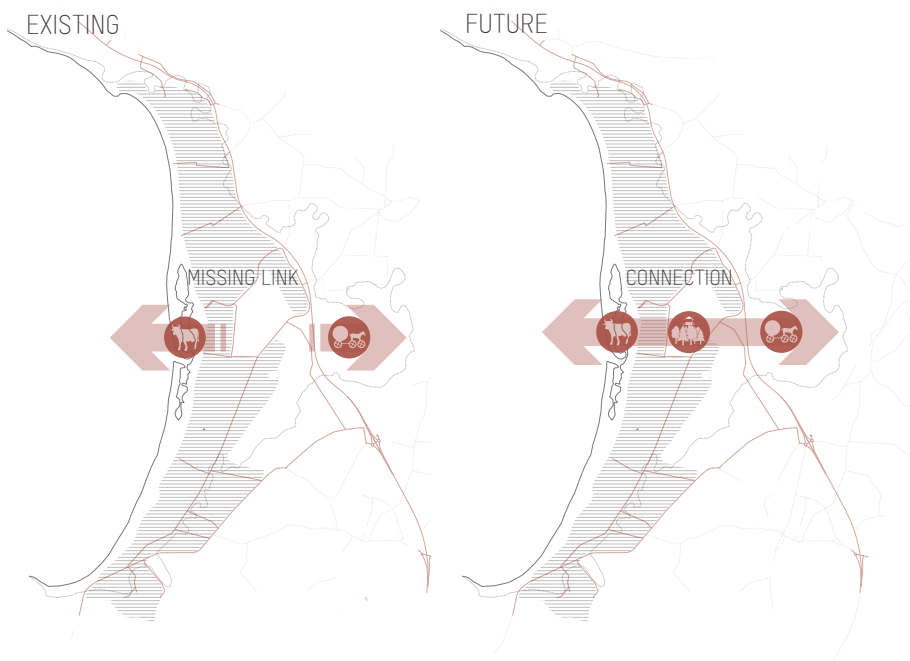
## TIMELINE OF SEJERØ BAY







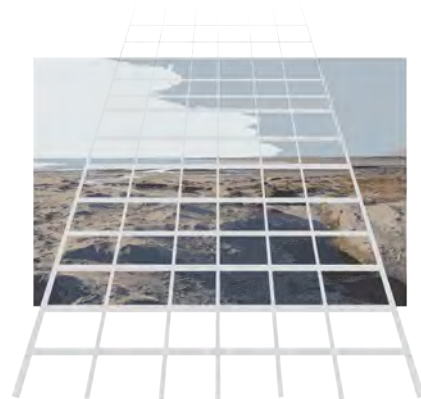
## VISION DIAGRAMS



## PATH DESIGN RULES

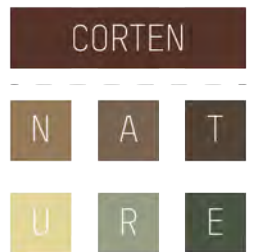
### 1 | TEXTURE

Grate which allows nature to interact with paths while increasing the user's experience of nature



### 2 | MATERIAL

Chosen to blend in with the surrounding environment. Corten steel or regular steel.



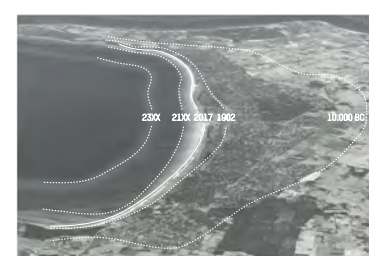
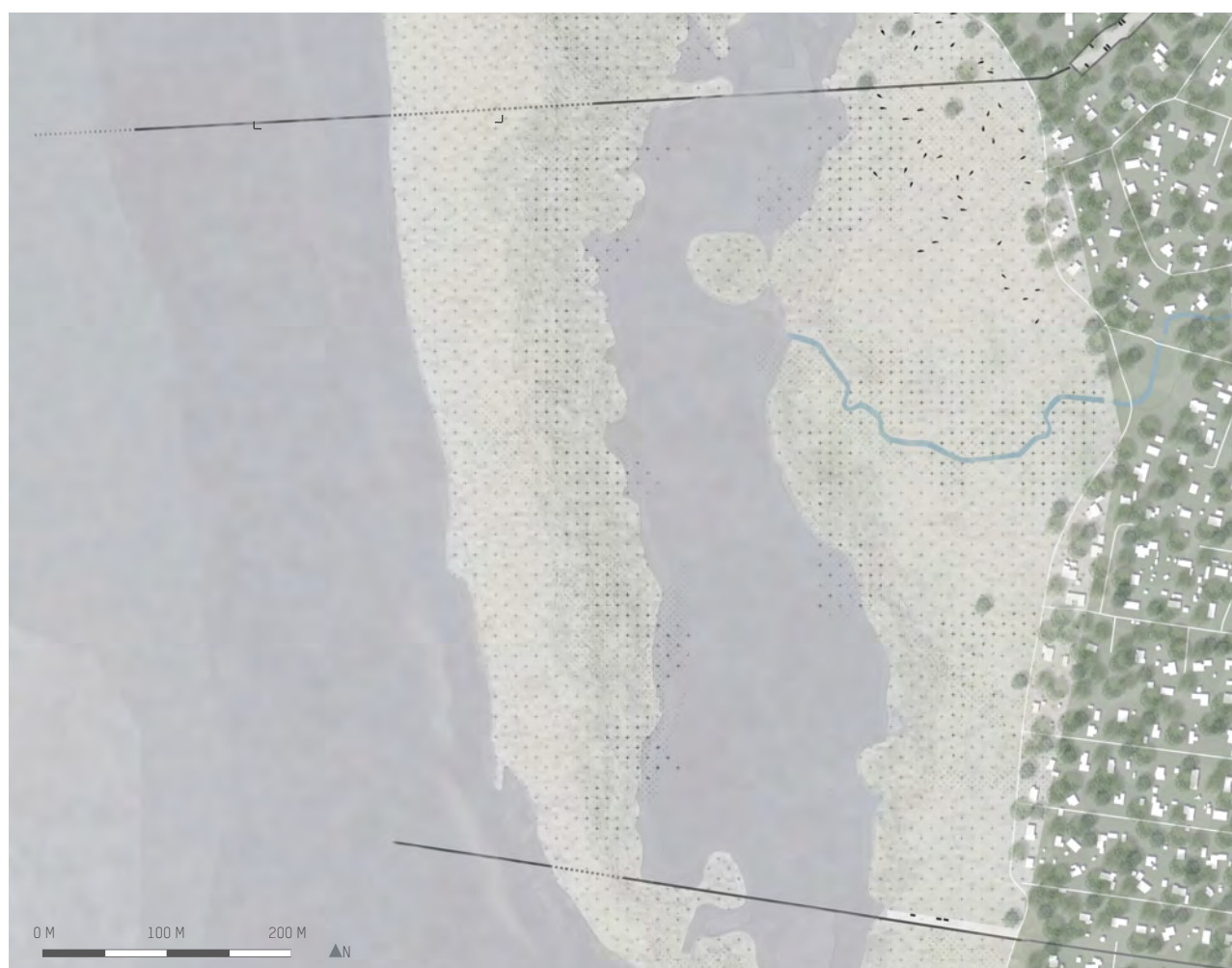
## EXPERIENCING THE SITE



# THE COW REEFS



THE COW REEFS  
1:500



COAST EXPANSION

The Cow Reefs are an ever changing stretch of coastline. Today you find seven bridges crossing the lagoons, making the outer dune landscape more accessible. In this project the lines of two of these bridges are being continued into the sea with two new piers.

The piers are made of grated steel which blend into the colors of the ocean and sky. The grated material will allow users to experience the water and formation of the new dunes more closely by allowing these new dunes to grow through the pier and over time bury parts of it.



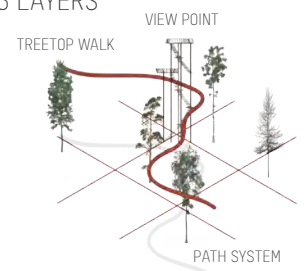
# ELLINGE INDHEGNING



ELLINGE INDHEGNING  
1:500



3 LAYERS



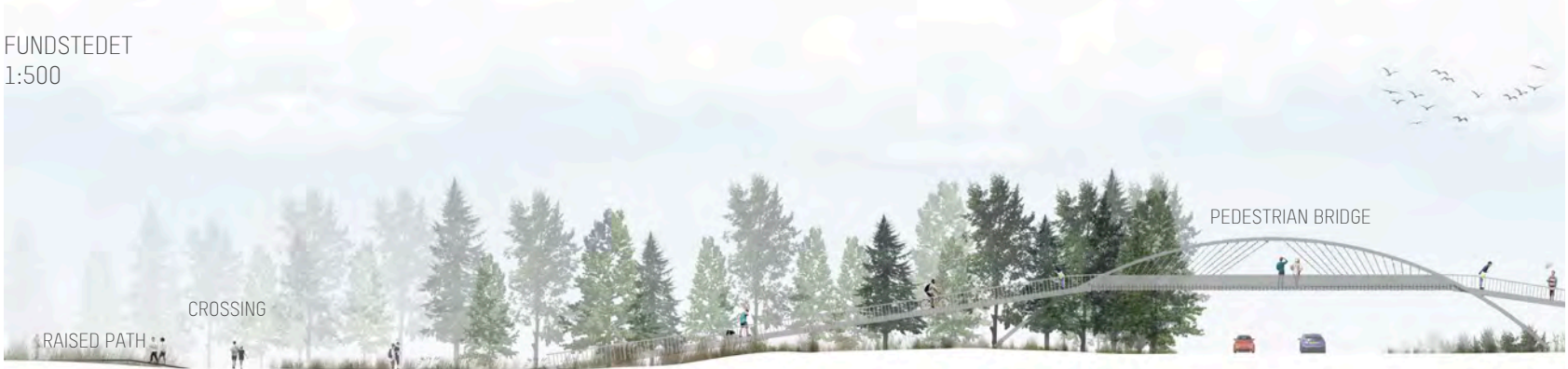
Activating Ellinge Indhegning, the space between the Cow Reefs and Fundstedet, plays a crucial role in connecting the two Geo-sites. The grid path system of the once production forest is still present, impeding efficient movement through the site. The design interventions in this area act to improve physical and visual connections throughout the forest. A tree top walk allows users to experience walking through the canopy and creates an efficient path across the forest. The tower creates a space to experience Sejerø Bay on a larger scale, framing the scenic views of Trundholm Bog and the dynamic coastal region from above the tree crowns.



# FUNDSTEDET



FUNDSTEDET  
1:500



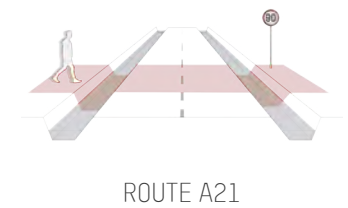
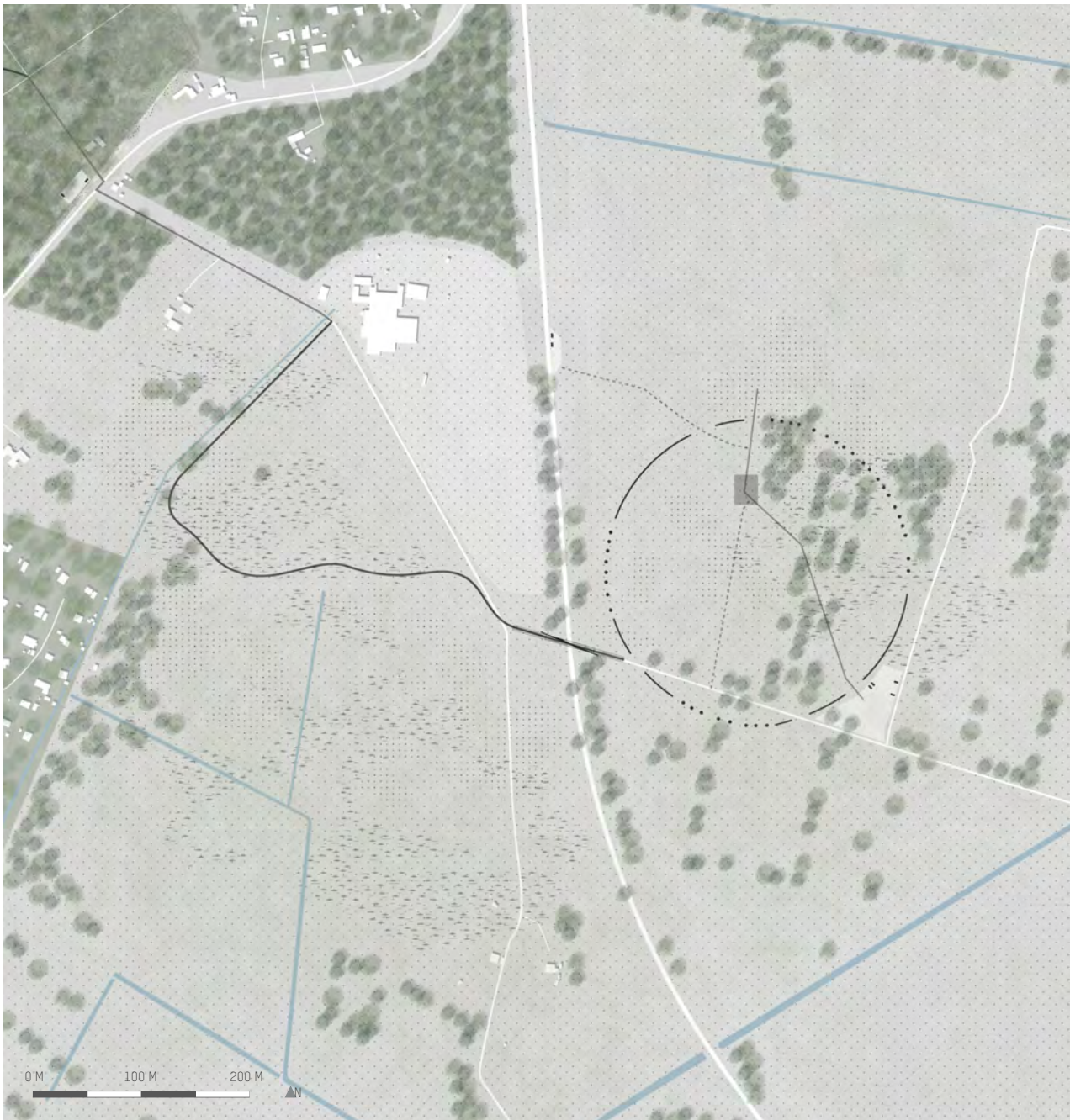
TOWARDS ELLINGE INDHEGNING

ROUTE A21

TOWARDS FUNDSTEDET







### FUNDSTEDET

A delicate pedestrian bridge has been designed to re-establish the connection broken by Route A21. The arch geometry acts as a reference to Odsherred's recognizable geological features. The bridge announces the finding place of the Sun Chariot and provides the pedestrians a unique view over the reclaimed Trundholm Bog.

The bridge leads to a raised path that passes through a wetland and continues towards Ellinge Indhegning. The grated materiality of the path allows vegetation to interact with the geometries of the trail.





# VANDSTIEN

Group 1; Ian Watkin Frederico Mclellan, Malene Prytz Larsen & Rakul Árnadóttir Jakobsen







# VANDSTIEN

Dette projekt udvider Geoparken så havet og vandets rekreative potentialer også bliver belyst. Projektet giver ny mulighed for at folk kan opleve vandets potentialer langs hele østkysten i forbindelse med eksisterende stisystemer. Ved de nordligt liggende havnebyer; Nykøbing Sjælland og Rørvig er strande og vandet hyppigt brugt af sommerhusejere, vindsurfing og kajak-entusiaster. Til gengæld vil turister der bevæger sig sydligere opleve en fragmenteret kyst inddelt i gårde og sommerhusområder. Det skaber en privatiseret oplevelse af kysten. Den østlige kyststrækning byder dog på rekreative naturoplevelser bl.a. de store skove, samt de både sandede og stenfyldte strande.

Den eksisterende natursti Fjordstien løber parallelt med Lammefjord og Isefjord. Ruten bugter sig igennem det glacielle istidslandskab og skyder sig gennem de lukkede skove og åbne marker. Det foreslåede projekt Vandstien er en forlængelse af Fjordstiens rute, men har til hensigt at udvide ruten så besøgende kan opleve Odsherred til vands.

Lammefjorden er et interessant sted for vandaktivitet. Istidens moræne har resulteret i en særegen kystdynamik. Vandet i det lavvandede område er roligt da fjorden er omkranset af land til alle sider. Vandforholdene i Isefjorden er derfor gode til forskellige rekreative vandaktiviteter. Sejllads, fiskeri, kajak og stand-up-paddle (SUP) er populært og det rolige område gør vandet ideelt til nybegyndere. Dog er de klubber som giver mulighed for at leje udstyr til de forskellige vandaktiviteter koncentreret omkring Nykøbing Sjælland og Rørvig. Projektet Vandstien foreslår at der opsættes 10 'SUP' stationer, baseret på princippet for bycykler som man eksempelvis kender fra København.

# VANDSTIEN

This project expands the Geopark Odsherred to the waters of the Isefjord. It offers new ways for people to interact with and perceive the water's and landscape of Odsherred's east coast. The east coast is Odsherred's gateway to the Isefjord. In the north, Nykøbing Sjælland, Rørvig and their harbours offer visual and physical access to the fjord. However, as visitors travel south to the Egebjerg peninsula they are met by a fragmented coastal experience. Farms occupy the landscape along the coastline and small pockets of summerhouses create a privatized feeling along the few roads that meet the coast. But, this less touristy stretch of coastline also inspires a sense of exploration and wilderness amongst its several forests and rocky beaches.

The east coast landscape can be experienced along the Fjordstien, an existing mixed use trail that weaves its way around the entire Isefjord. This trail offers impetus for exploring the coastal landscape. However, despite its name much of the Fjordstien is several hundred meters inland and shared with cars. Vandstien presents a reinvigoration of the trail's relationship with the Isefjord.

Vandstien proposes the installation of a network of 10 'SUP-stations' that act like bike share systems popular around the world. People exploring Odsherred can pick up a SUP from any one of the strategically located stations and paddle it to the next one without having to return to where they started. This opens up the possibility for traveling along the coast by foot, bike, horse and SUP all in one adventure.

Besøgende kan ved de strategisk placerede SUP stationer finde et SUP-bræt, padle op til en ny SUP station, efterlade samme bræt, som vil være klar til næste besøgende. SUP stationerne er placeret med 5 kilometers afstand, hvor der er god adgang for bilkørsel, gode badeforhold, placeringen forsøger for så vidt muligt undgå at genere private boligejere og er i nærheden af teltpladser.

Derudover anbefaler projektet at der opføres to vand-destinationer. Musslingeøen på spidsen af Kongsøre Næbbe og flydestationen mellem Annebjerg og Nykøbing Havn. På Muslingeøen kan besøgende på aktiv vis lære om muslingeopdræt, vandbiologi og rensning af vand. Flydestationen giver nybegyndere et pusterum og er en sjov destination for de som er på en længere SUP/vandre tur.

Muslingeprojektet, flydestationen og SUP ruten henvender sig til lokale og turister i Odsherred. At kombinere lokale naturoplevelser med rekreativ turisme er en vigtig mekanisme, som kan definere Odsherreds succes i fremtiden. Odsherreds Geopark undersøger sammenhænge mellem geologi og moderne brug af landskabet. Ligeledes vil turister der oplever Geoparken til vands, kunne møde lokale som også dyrker grøntsager og kender til muslingsøen. Projektet Vandstien forsøger at skabe synergi mellem turisme og lokale.

Ved at tage afsæt i eksisterende aktiviteter er projektet Vandstien med at udvikle det næste kapitel af kystens historie. SUP stationerne, muslingeøen og flydestationen er nye elementer som sætter rammen for at Odsherred fortsat kan være et sted hvor aktiv livsstil, naturoplevelse og historisk udvikling mødes.

From the calm waters of this shallow glacial relic, the Isefjord offers great recreational opportunities. Stand-up-paddle boarding (SUP) is an increasingly popular and accessible means of travel that provides a new way to experience the Geopark. From the water the dead-ice landscape rolls up out of the sea and the remnants of the Lammefjord can be floated on and felt. This gives the adventurer a tangible sense of the glacial and industrial landscapes.

Vandstien also proposes the installation of two aquatic refuges; Mussel Island at the tip of Kongsøre Næbbe; and Hitching Post between Annebjerg and Nykøbing Havn. These destinations along the coast are designed to offer respite for the novice paddle boarder and an exciting destination for those on a longer journey. However, they also encourage an active relationship with the water through mussel farming and the expression of water currents.

Odsherred's residents are invited to participate in the recreational cultivation of mussels. We see the integration of local recreation with tourism as an important mechanism for the success of the Geoparks future. The Geopark is centrally concerned with the expression of geology through human use of the landscape. As tourists explore the Geopark from the sea they will be welcomed by locals who grow and enjoy the fruits of the Isefjord. We see these sites as catalysts for a greater synergy between the local and tourist experience, offering a richer experience for both.

By spring boarding off the existing uses and infrastructure along the coast Vandstien offers a next chapter in the coast's story. This chapter is one that offers better access to the coast and water, a different view of the landscape and an enriched experience of the Geopark for locals and visitors.





## WHERE



The east coast of Odsherred where the shallow waters are good for water sports

## WHY



INTERUPTED ACCESS TO WATER FROM LAND



A LOT OF LAND VISIABLE FROM SEA

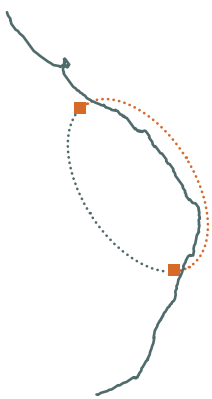


CONNECTING TO FJORDSTIEN AND PUBLIC FACILITIES

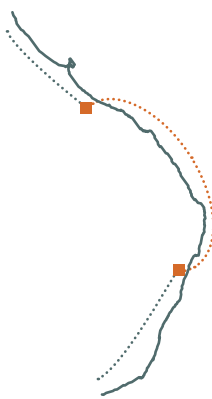


ATTRACT TURISM AND EXPLORE GEOLOGY, COASTAL LANDSCAPE AND WATER

## SUP NETWORK



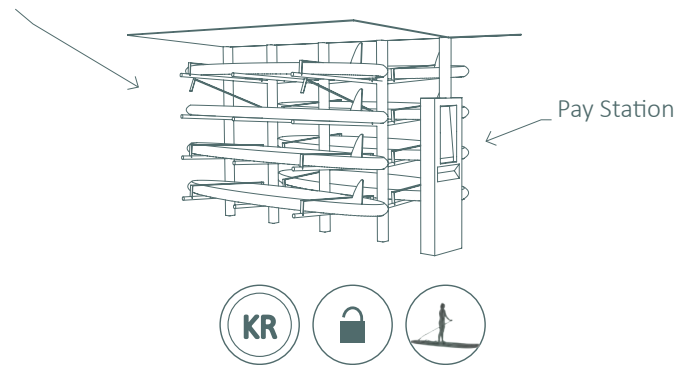
Loop Trail



Alternate Route

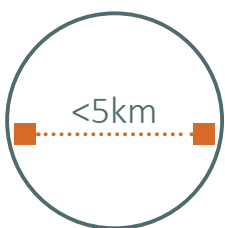
## SUP STATIONS

Secure Racks and clamps



Like popular city bike systems around the world  
The SUP-stations are unmanned and easy to operate

## WHERE CAN I FIND A SUP STATION



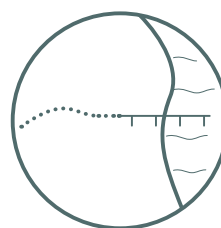
Located  
5 km apart



Car access



close to  
campsites



close to  
public beaches



close to  
summerhouse area



close to  
forests



## WHAT TO SEE



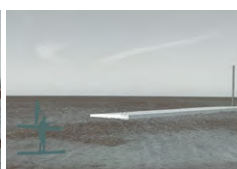
Make your way down to Nykøbing harbour and find the SUP-station.



Hire a SUP and head for the water.



Learn the basics in the calmest waters around the harbour. Get a lesson from one of the local instructors.



Test yourself and paddle down to the Hitching Post for a swim and rest.



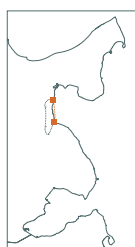
Paddle back to the harbour to return your SUP.



Stroll back into town for a well earned beer.



Learn to SUP in Nykøbing with a visiting couple



Have a cup of coffee at the Annebjerg campsite.



Hire a SUP and head for the water.



Enjoy bird watching as you paddle south along shallow waters with many small sand islands.



Paddle into Strandhuse where you can leave your SUP at a SUP-station.



Walk into the Ulkerup forest and explore the deserted village.



Stroll back to camp through Annebjerg forest.



Annebjerg Ulkerup Loop with three teenage girls



Leave Sidingefjord SUP-station and explore the coastal wetlands of Lammefjord.



Discover Mussel Island. Meet a local fisherman. Have a swim and relax.



Be inspired by Kongsøre forest as the Beech trees grow tall along the coast. Return your SUP to the SUP-station.



Find a quiet lunch spot and enjoy the serenity.



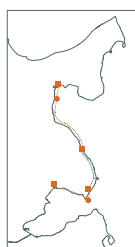
Wonder through the forest and discover stone age burials, hidden lakes and magical vistas.



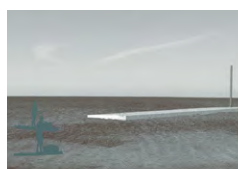
Stroll back to the car via the rolling dead ice landscape and farm land. Try and spot places you have seen from sea.



Lammefjord and Kongsøre Forest Loop Trail with the whole family



Walk from the Nykøbing train station to the harbour and hire a SUP.



Paddle south to the hitching post and have a rest, swim and snack. Continue south exploring the dead-ice coastline.



Check out the Lommestenen from sea and land. Return your SUPs at the SUP-station in Stokkebjerg and find a place to camp for the night.



Set off on foot through Stokkebjerg forest towards Kongsøre forest. Pick up some fresh farmers produce near Hølkerup along the way.



Hire another SUP and paddle out to Mussel Island to meet a local and try to find some mussels.



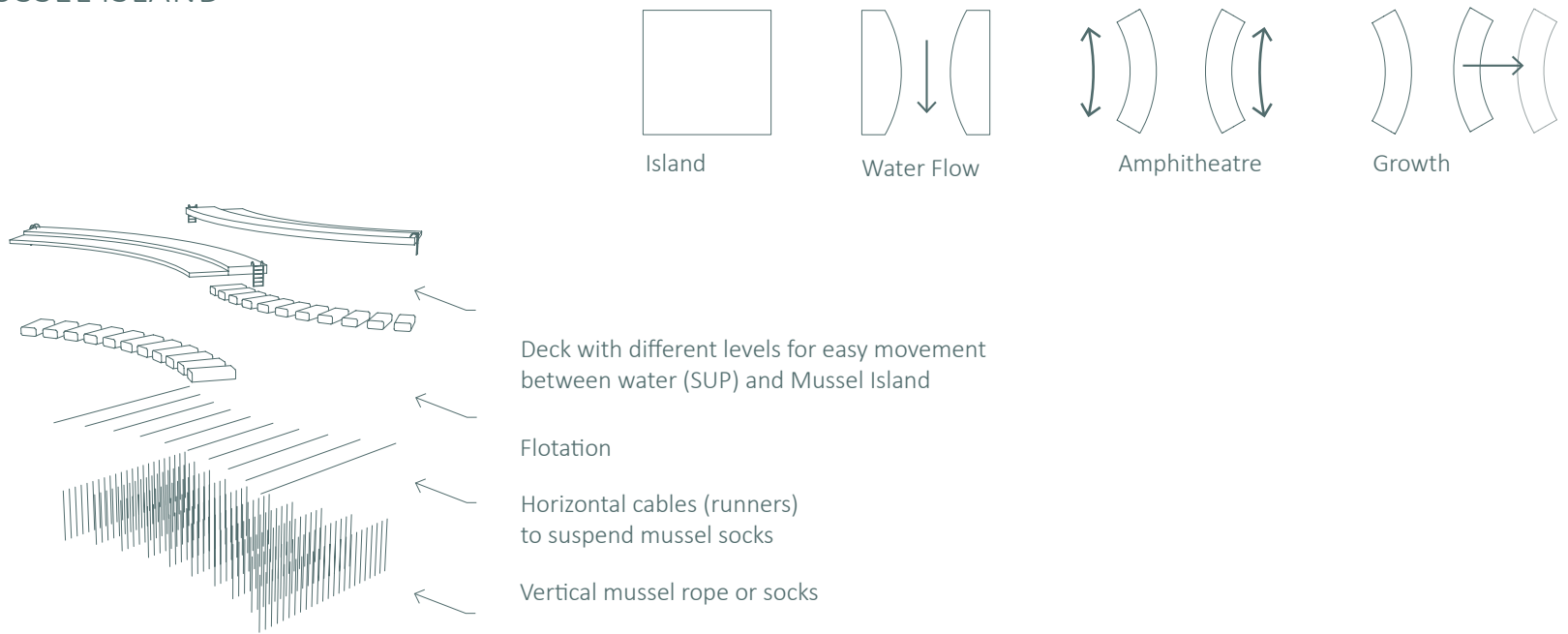
Paddle into the Lammefjord toward Sidingefjord SUP-station. Return your SUP and walk up to Vig to catch the train back to Copenhagen.



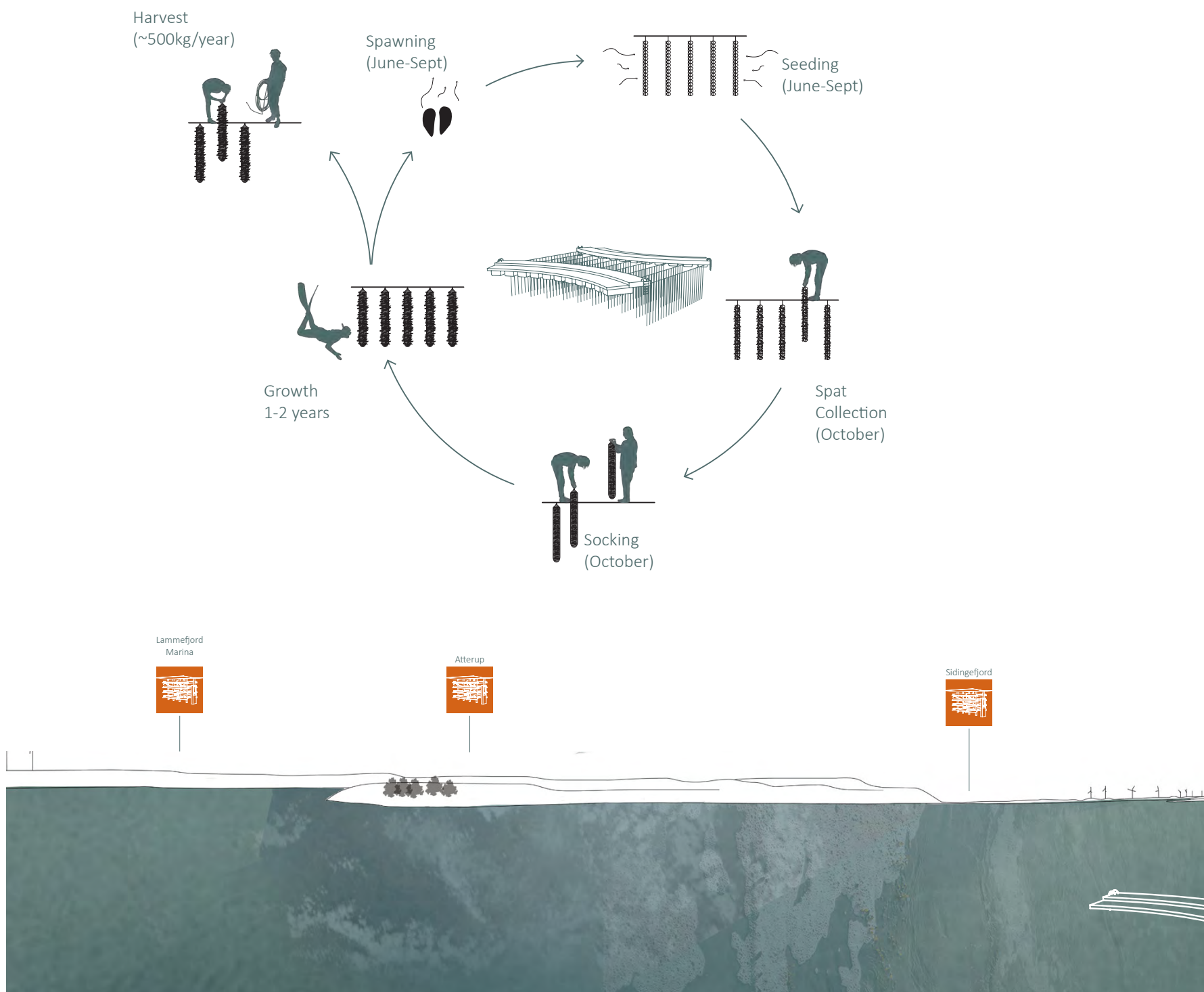
Odsherred East Coast Adventure with two Australian backpackers



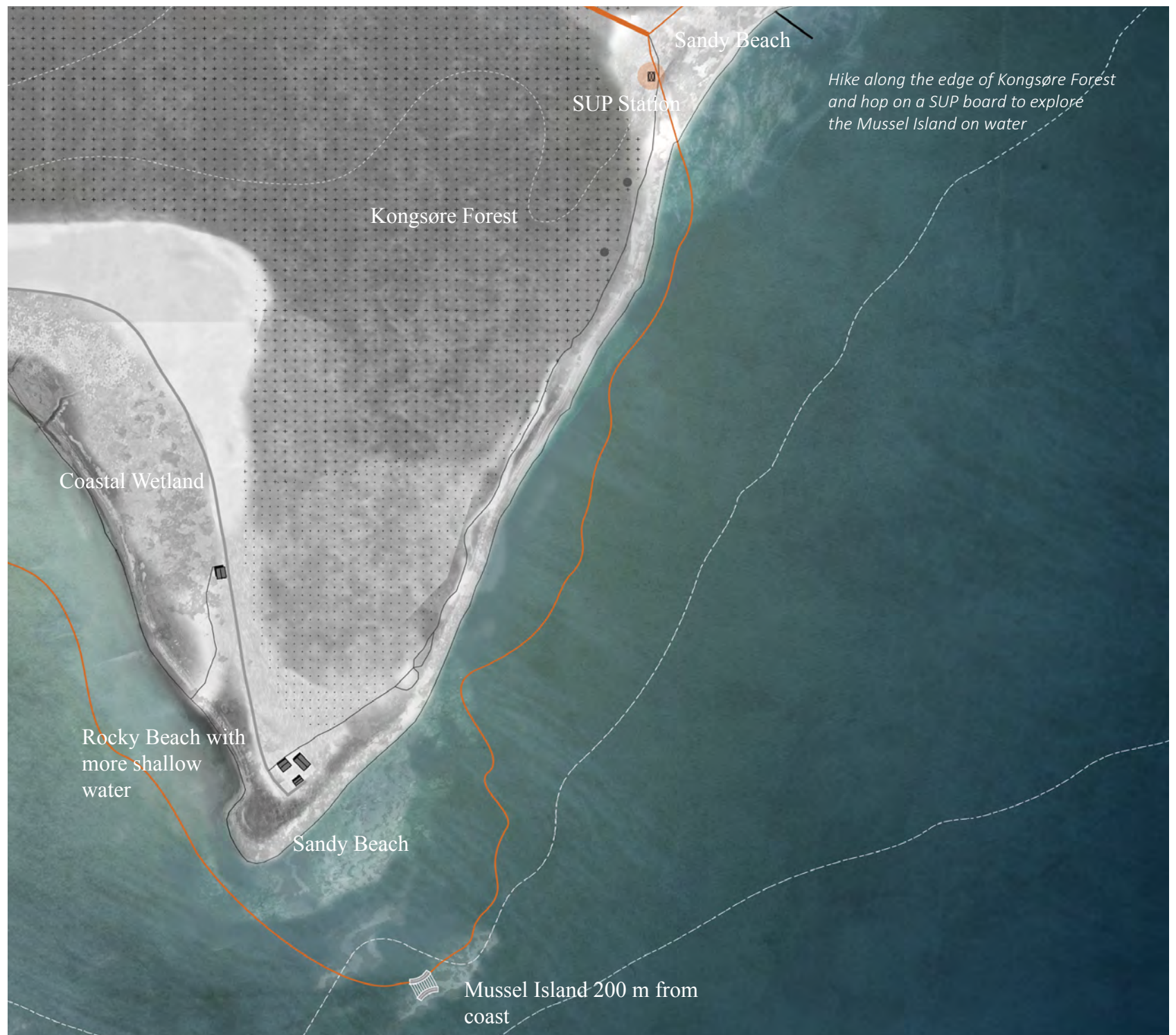
## MUSSEL ISLAND



## HARVESTING MUSSELS



## MUSSELISLAND NEAR KONGSØRE FOREST

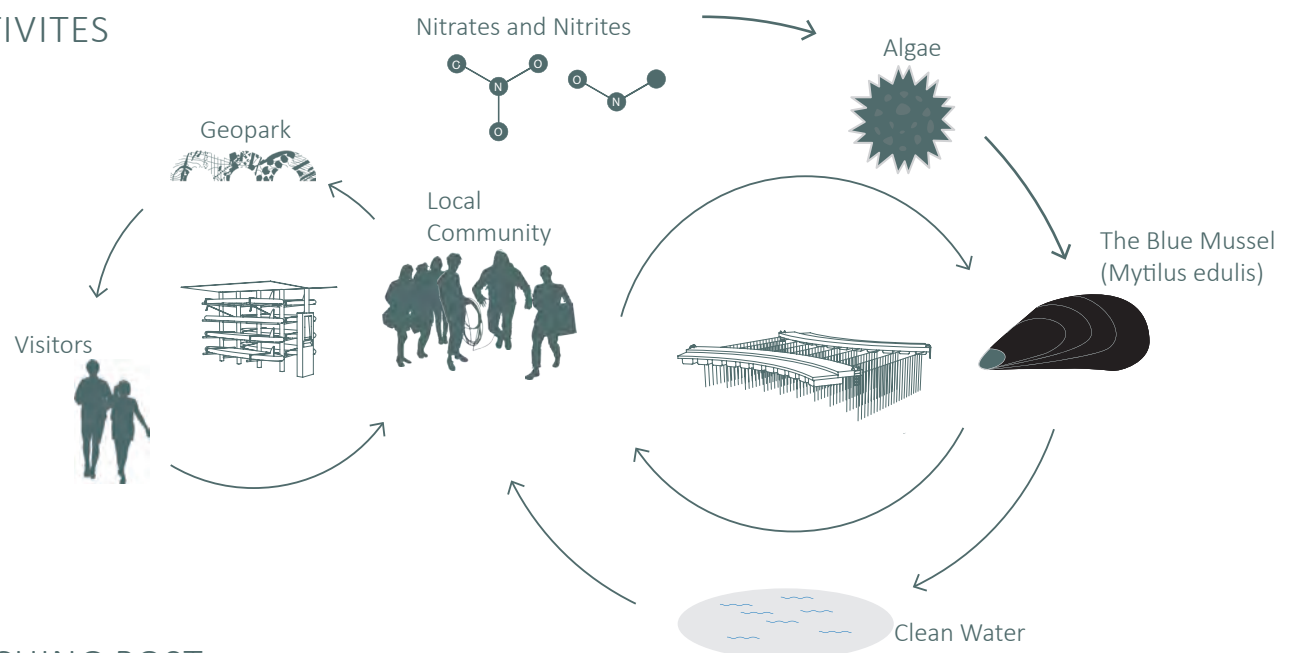


0 100 200

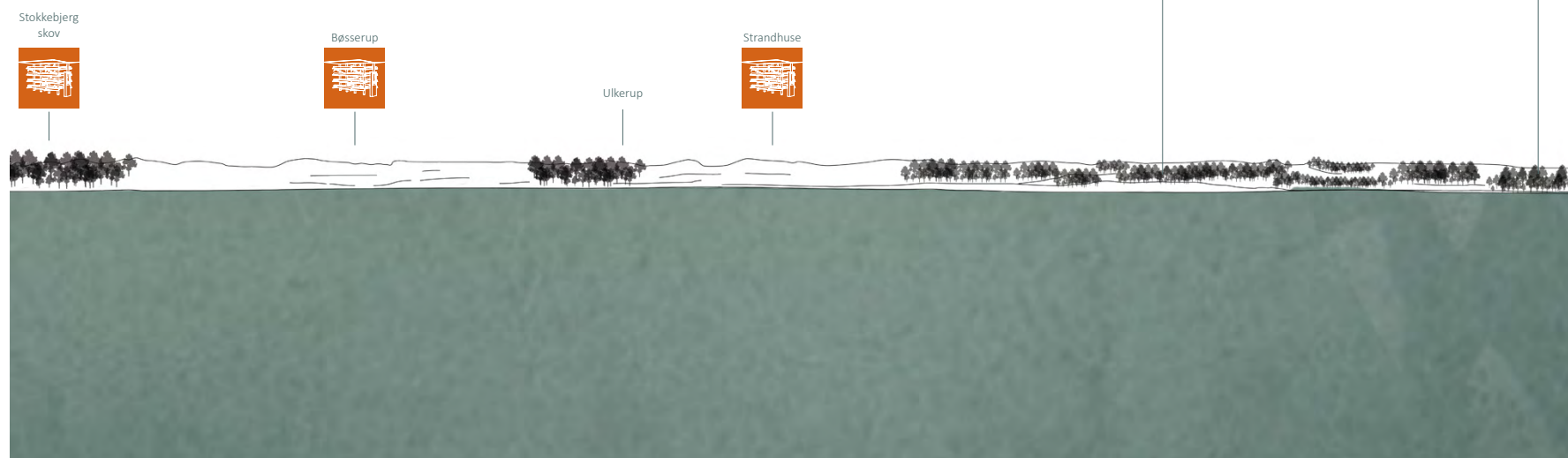




# SYNERGY BETWEEN COMMUNITY AND WATER ACTIVITES

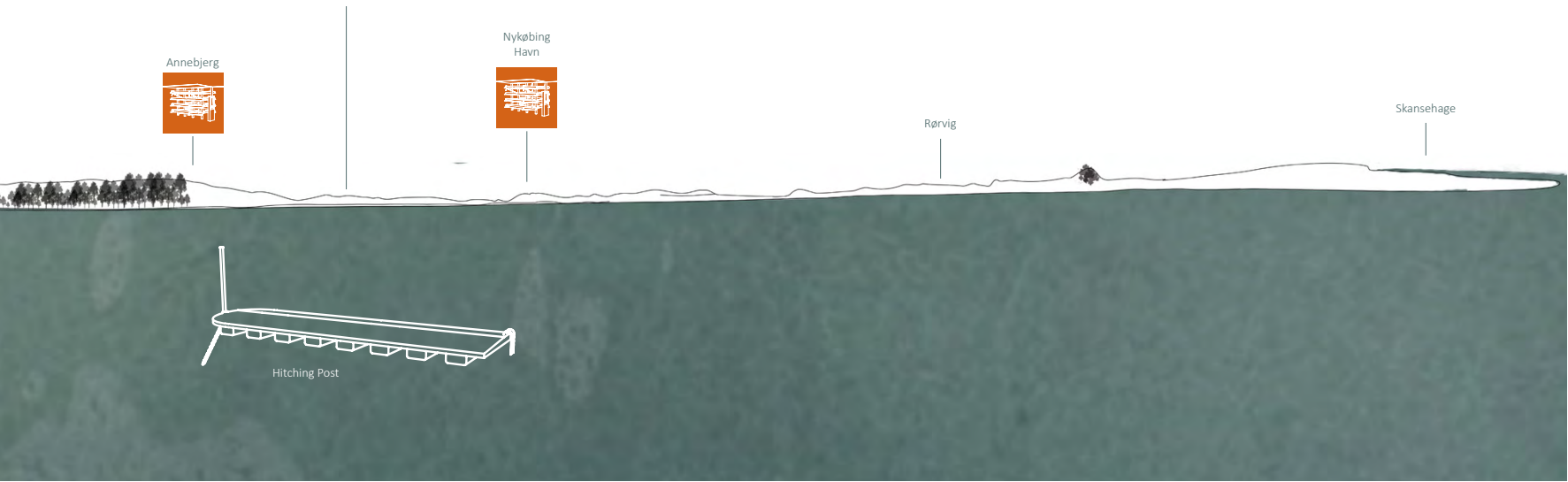
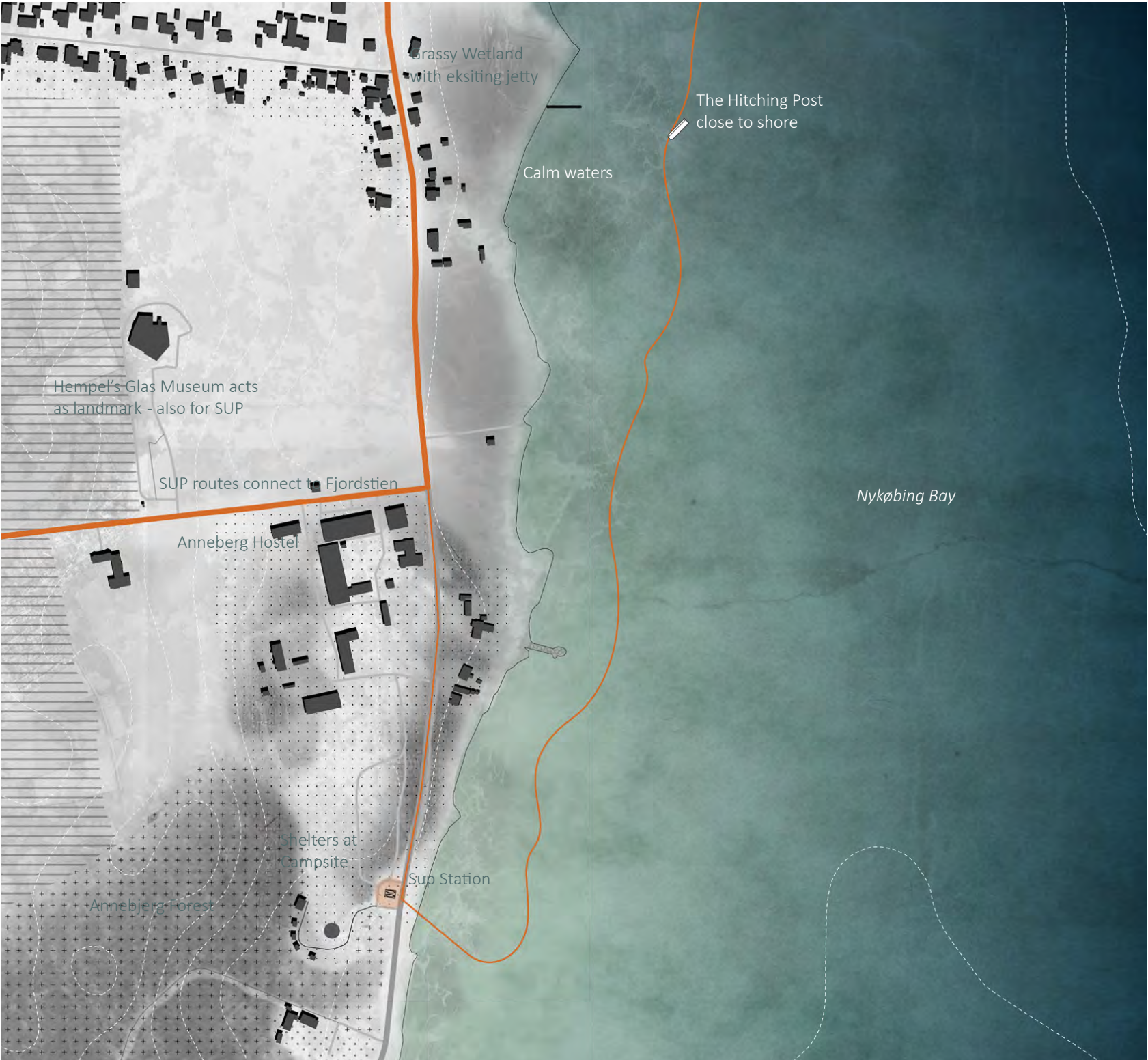


## SUP TO THE HITCHING POST





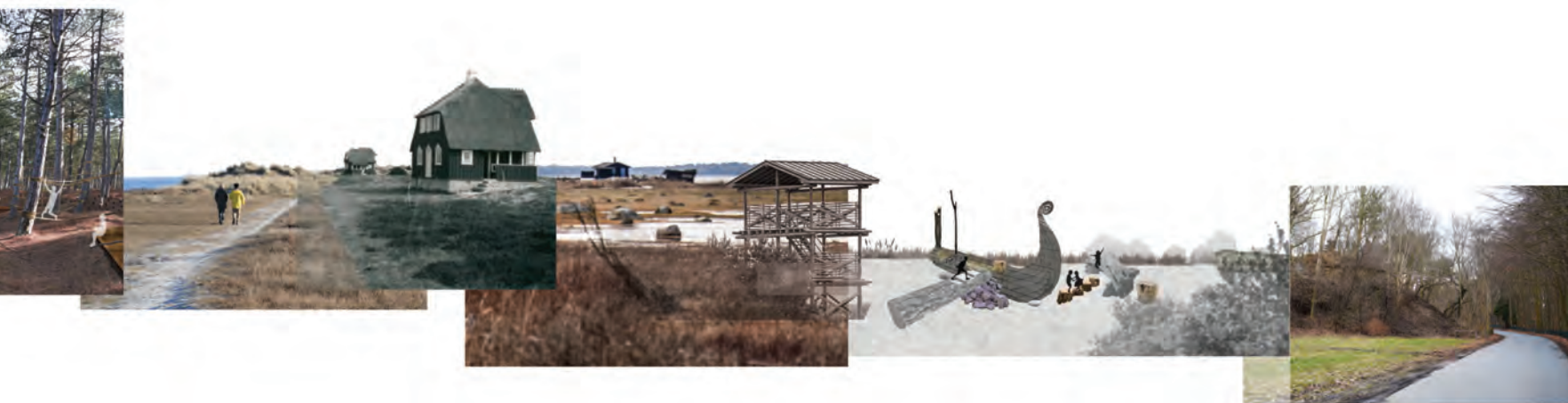
EXPLORE THE COAST OF ODSHERRED











# ACCESSING SUMMERHOUSE LANDSCAPES

UNCOVERING HIDDEN FEATURES ALONG NATURE'S SHARP CORNER

Fred Zhang, Natasja Parsons, Natradee Quek & Rasmus Lind



# DET GEMTE LANDSKAB PÅ NATURENS SKARPE HJØRNE

Med tre udvalgte interventionsområder: indgangen til Højsandet, Dybesø og Langesø mose, foreslår dette projekt at afdække og genskabe forbindelsen til Rørvig-halvøens landskab, et område med mange sommerhuse og en høj koncentration af Geopark-seværdigheder. Siden istiden har naturlige processer og menneskelig påvirkning ændret landskabet. Højsandet blev skabt i et forsøg på at forhindre sandflugt, og senere blev en plantage anlagt for at forhindre samme problem. Tidligere afgræsningsarealer på næringsfattig jord, blev solgt og er i dag omdannet til sommerhusområder. Odsherreds nordøstlige kyst er hjemsted for en del af Danmarks fritidshistorie, der både indeholder sommerhuse, badhoteller og sommerkolonier, der blev etableret for at give byens børn mulighed for at beøge naturen. Rørvig-halvøens landskab indeholder mange vigtige eksempler på geologiske processer, landskabstyper og menneskeskabte, kulturelle landskaber. Men mange af disse landskaber er skjulte og utilgængelige på grund af ekstensive sommerhusområder med tæt vegetation og invasive plantearter. Rørvig-halvøen er et af Odsherreds mest attraktive sommerhusområder, hvilket afspejles af huspriserne, men det har medført en privatisering af landskabet. En forbedring af offentlig områder, vil give lokale beboere og sommerhusejere forbedret adgang til landskabet.

Projektet foreslår tre interventioner langs en eksisterende sti *Naturens Skarpe Hjørne*: indgangen til Højsandet, Dy-

besø og Langesø mose. Rørvig Havn fungerer som indgang til Odsherred med færgen fra Hundested, og en kort sti leder vejen til Højsandet, en 15 m høj, menneskeskabt klit, som blev skabt for at beskytte Rørvig mod sandflugt. Vegetationen på indgangen til Højsandet fjernes for at tydeliggøre selve strukturen, og for at give mulighed for udsigt på toppen af klitten. En fodboldbane ligger allerede for foden af Højsandet, så ved at integrere siddepladser til fodboldkampe i klitten skabes der samtidig adgang op ad klitten. Den anden intervention foregår i området omkring det tidligere badhotel Rørvig Bad. Fjernelsen af mere vegetation i Sandflugtsplantagen giver mulighed for en udsigt ud over Kattegat fra badhotellet og naturlegepladser understreger det diskrete klitlandskab, der i dag er gemt under træerne. Hotelfunktionen bliver reetableret i det tidligere badhotel Rørvig Bad for at skabe et aktivitetspunkt i området. Den tredje intervention er området omkring Langesø mose, hvor tre sommerkolonier er placeret. I vikingetiden var området forbundet til Isefjorden, så en skibsstruktur vil fungere som en udkigspost og en legestruktur til glæde for besøgende i kolonierne.

Ved at understrege eksisterende Geopark-seværdigheder og skabe nye attraktionspunkter i sommerhuslandskabet, skaber dette projekt et mere attraktivt landskab som bedre integrerer sommerhusene med det åbne kystlandskab samt skaber nye aktiviteter for sommerhusejere, beboere og besøgende.

## HIDDEN FEATURES ALONG NATURE'S SHARP CORNER

Working with three selected intervention sites – the entrance to Højsandet, Dybesø and Langesø bog - this project aims to reveal and reconnect the landscape of the Rørvig peninsula, an area with many summerhouses and a concentration of Geopark sites on Odsherred's Northeast coast. Since the ice age, natural and human interventions have transformed the Northeast coast. Attempting to prevent sand flight by building fences, Højsandet was created, and later a plantation was made for the same purpose. As a result of the specific geology here, poor sandy soils which were formerly farm land were sold, and today have become summerhouse areas. Odsherred's Northeast coast has long been a site of Denmark's leisure history with bathing hotels, the first summerhouses and summer colonies were established for city children to have the opportunity to interact with nature in their holidays. Today much of the landscape is hidden and inaccessible due to the extensive summerhouse areas with dense vegetation and introduced invasive species. Being one of the most attractive summerhouse areas in Odsherred, real-estate values have reflected this in our recent history and created a privatized feel of the landscape. However, Danish law promotes public access to the coast, so better public spaces will allow for more access and connection to the landscape for local residents and summerhouse owners.

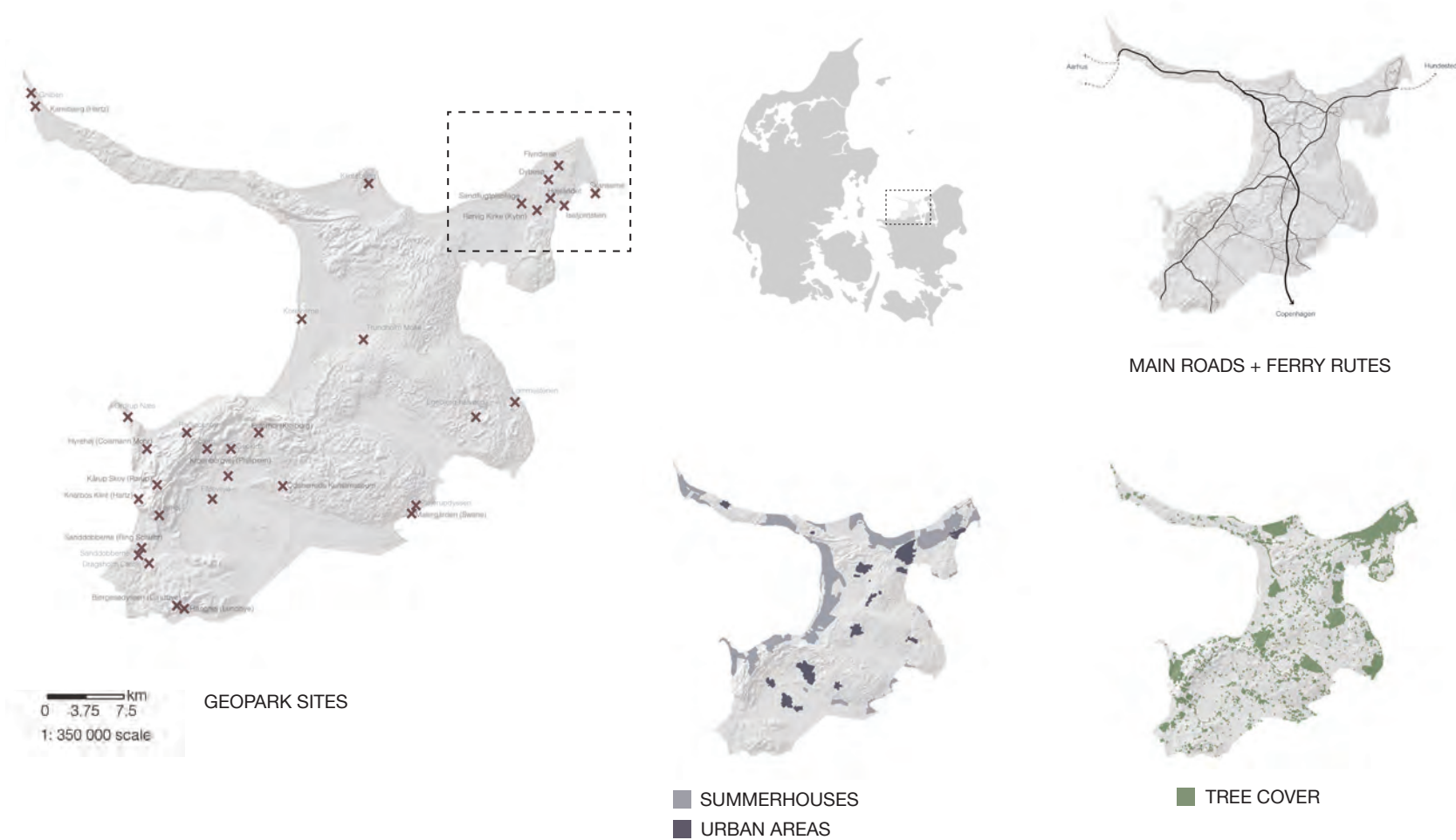
This project proposes three main intervention on sites along an existing path called *Nature's Sharp Corner*: the entrance to Højsandet, Dybesø, and Langesø bog. Rør-

vig Harbour acts as an entrance to Odsherred with a ferry from Hundested, and a short path guides the way to Højsandet: a 15-m high man-made dune. The entrance to Højsandet is cleared from vegetation to emphasize the structure itself as cultural landmark created to protect Rørvig from sand flight, and to allow for views from the top of the dune. Currently, there is a football pitch here, so integrating seating into the dune will double as a way to climb to the top of it. The second intervention site is the area around the former beach hotel Rørvig Bad. Clearings of more vegetation in the Sand Flight Plantation will allow for a view of Kattegat from the beach hotel, and natural play features will highlight the subtle dunescape under trees. The hotel function is revived in the former beach hotel, Rørvig Bad, to act as an attraction point in the area. The third intervention site is Langesø bog, where three summer colonies are situated. Formerly connected to the sea during the Viking Age, a ship-like structure will serve as a viewing platform and structure for play.

The historical transformation of the Rørvig Peninsula is a result of geologic and cultural processes, which this project aims to highlight. By emphasizing existing Geopark sites and creating new points of attraction in the summerhouse landscape, the project will create a more attractive landscape which better integrates summerhouse areas with open coastal landscapes, and also provides new activities for summerhouse owners, residents and visitors alike.



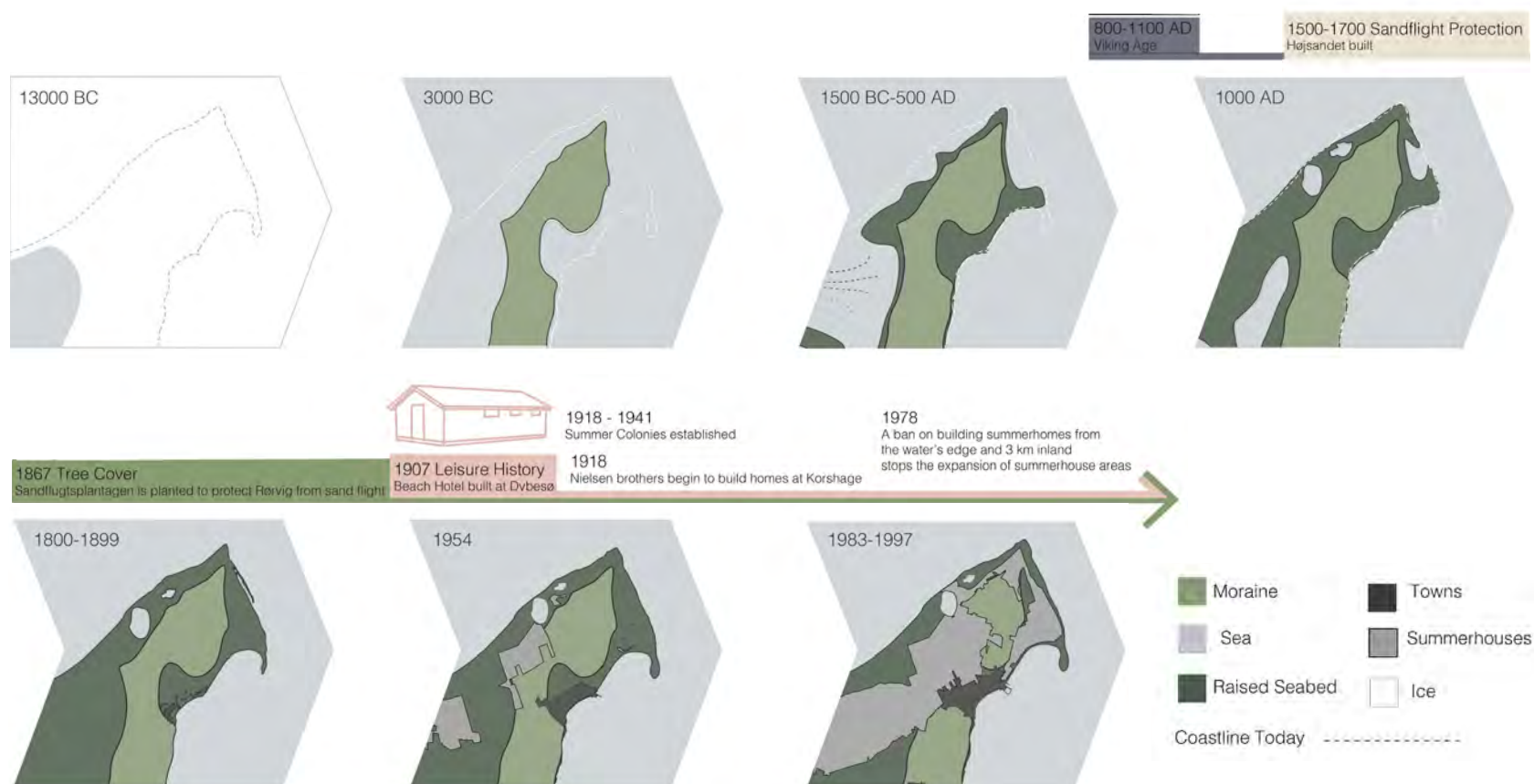
# GEOPARK ODSHERRED



## CONCEPT

The Northeast coast has transformed with the development of leisure culture. Once barren land has become densely vegetated summerhouse areas with poor accessibility. By creating three new public attraction points along an existing trail, this project focuses on revealing cultural history and connecting the landscape of the Rørvig peninsula to summerhouse guests, summer colony users, and visitors to the area. Introducing site-specific play features reflect the historical significance of these places and will redefine them for the present and future.

## TIMELINE





1 Højsandet



2 Entrance to Højsandet



3 Former Rørvig Bad



4 Dybesø



Højsandet 1930s



Rørvig Bad 1912





5 Dybesø Path



6 Korshage



7 Road to Summer Colony



8 Stone Age Coastline



Summer colony 1940



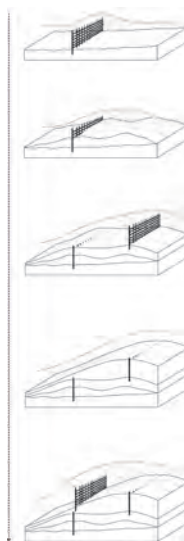
## INTERVENTION *HØJSANDET*



VISUALIZATION OF HØJSANDET FOOTBALL PITCH

The entrance to Højsandet is the first intervention site, a 15-m high man-made dune, that goes from Rørvig all the way to Dybesø. The entrance to Højsandet is cleared from vegetation to emphasize the structure itself as cultural landmark created to protect Rørvig from sand flight, and to allow for views from the top of the dune. Currently, there is a football pitch at the foot of Højsandet, so integrating seating into the dune will double as a way to climb to the top of it. Next to the football pitch, a playground is created with fence-like play features as a reminder of the way Højsandet was created - by putting fences up to prevent sand flight in the 16th century.

CREATION OF HØJSANDET



DUNE FENCE PLAYGROUND CONCEPT



TREE CLEARING

Dune Fence Playground

Football Pitch

Bleacher Steps

Football Club



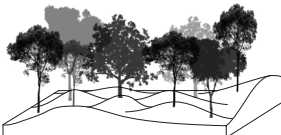
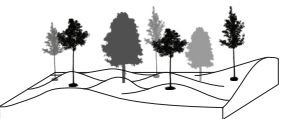


INTERVENTION *DYBESØ*



VISUALIZATION OF DYBESØ

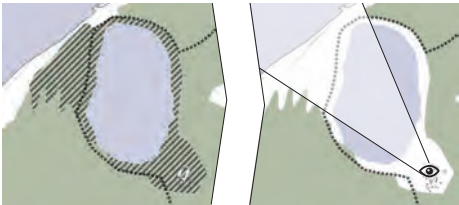
The second intervention site is the area around Dybesø and the former beach hotel Rørvig Bad. Clearings of more vegetation in the Sand Flight Plantation will allow for a view of Kattegat from the beach hotel, and the Sunshine Hill, Solfaldshøj, next to the beach hotel will be cleared from vegetation to make the hill live up to its name again. Natural play features will highlight the subtle dunescape under trees in the Sand Flight Plantation. The hotel function is revived in the former beach hotel, Rørvig Bad, to act as an attraction point in the area.



FORMATION OF PLANTATION



FOREST PLAYGROUND IN THE DUNES

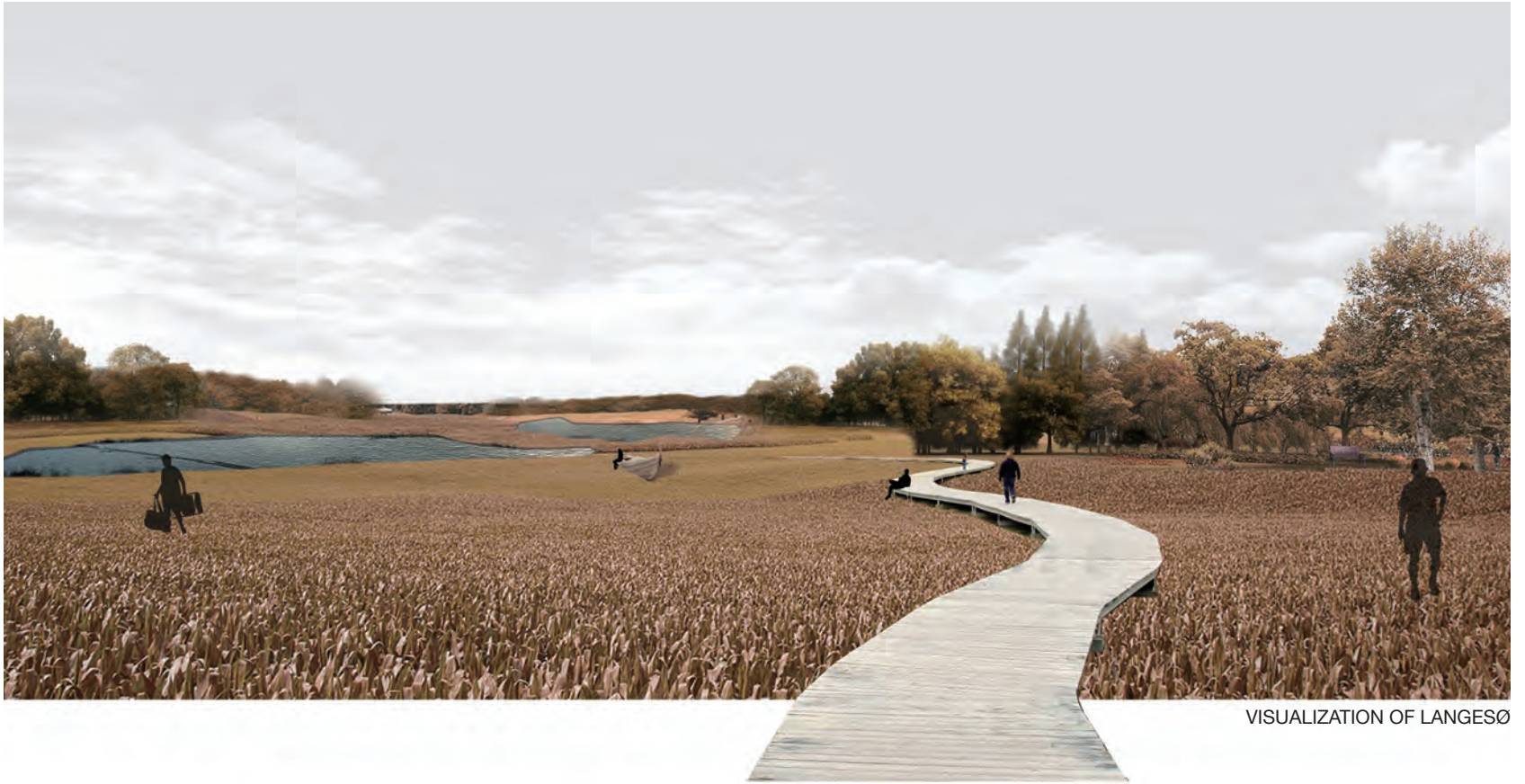


TREE CLEARING



Dybesø                      Dybesø Dock                      Dybesøvej                      Rørvig Bad and associated buildings



INTERVENTION *LANGESØ*

VISUALIZATION OF LANGESØ

The third intervention site is Langesø bog, where three summer colonies are situated. Vegetation is also cleared from the area to re-establish the area as wet meadow, and to better integrate the three summer colonies in the area around Langesø bog and to connect them with each other. Formerly connected to the sea during the Viking Age, a ship-like structure will serve as a viewing platform and structure for play for the children at the summer colonies and other visitors. A public bird watching tower will allow all visitors to enjoy the high quality of the bird-life concentrated in the Rørvig peninsula.



FORMATION OF LANGESØ



VIKING PLAYGROUND CONCEPT

Especially around Langesø Bog and Korshage the birdlife is very impressive during bird migratio. It is possible to spot common eider, common goldeneye, common merganser, red-breasted merganser and the northern shoveler, which all are species protected under the Natura 2000 act.



TREE CLEARING

Birdwatching Tower

Viking Coast Playground

Summer Colony







*preserved antenna*

*diesbjerg*

*pillars replacing logged antennas*

*meltwater gorge*





# *Geocenter Skamlebæk*

*geocenter buildings*

*the radio tower*

*logged antenna*

*bollinge bakke*

**transformation studio**

**2017**

**group 3**

**Skarphéðinn Njálsson**

**Ludvig Bratt**

**Anne Simone Lindboe &**

**Isanoor Djezzaz Nielsen**



# Besøgcenter Skamlebæk

## Inspirere til nysgerrighed

Skamlebæk Radio Stations tomme bygninger omdannes til et interaktivt besøgscenter og socialt samlingspunkt for både turister, lokale og foreninger. Stationens gamle bygninger ligger i hjertet af det nye Geocenter, som strækker sig udover den åbne Skamlebækslette, omgivet af smeltevandsbjergende Bolinge Bakke og Diesbjerg. Geocenter Skamlebæk vil fungere som udgangspunkt for, at tage på opdagelse i det omkringliggende landskab og videre ud i Geopark Odsherred.

## Fra Geo spots til Geocenter

Odsherreds smukke landskaber har dannet bund for biologiske og kulturelle processer i mere end 25.000 år. De unikke geologiske formationer tydeliggør de forhistoriske dannelser af glacielle landskaber. Der er fundet arkæologiske spor fra forhistoriske bosætninger over hele Odsherred, nogle kan endda dateres helt tilbage til stenalderen!

I år 2014 blev Odsherred udnævnt til Danmarks første Geopark. Dette giver Odsherred en betydningsfuld mulighed for, at formidle og drage nytte af de mange landskabelige og kulturhistoriske kvaliteter, som Odsherred har at byde på. Desværre er Geopark konceptet stadig ukendt for mange beboere og sommerhusejere i Odsherred. Det er utydeligt for både lokale og besøgende hvor geoparken faktisk starter og hvilke oplevelser den byder på.

Som det er nu, formidler Geoparken deres mest interessante emner gennem geo sites. I disse flagskibsprojekter, fokuseres der på én eller flere af de mest definerende kvaliteter i Geoparken. Geocenter Skamlebæk skal fungere som dét sted hvor fra, en oplevelse af Geoparken

som et hele, kan overbringes til dens brugere. Kulturhistorie, geologi og biologiske processer skal bringes sammen i en forståelse af deres sammenflettede udvikling og i deres relation til vores for- og nutid.

## Hjertet og landskabet

De ledige lokaler i den gamle radio stations bygninger giver plads til Geopark relateret aktiviteter som for eksempel; udstillinger, events, oplevelsesture, research og vidensdeling. Her kan besøgende lære om Geoparkens kvaliteter og blive inspireret til, at udforske yderligere gennem permanente og midlertidige installationer. Dette vil være omdrejningspunktet for Geocenter Skamlebæk.

Skamlebæksletten fungerer som et stort offentligt areal, hvorfra der er adgang til det omkringliggende landskab og kysten. Det åbne hede-landskab er overstrøet af gamle antenner der gør stedet til et interessant rum at bevæge sig rundt i. Disse antenner spiller en stor rolle i udviklingen af landskabet omkring geocenteret.

Fra Skamlebæksletten har man mulighed for at bevæge sig ud i Vejrhøjbuens morænelandskab via et nyt stisystem. Stien bevæger sig over de åbne vidder langs Skamlebæks smeltevandsdal. Stien forbinder Bolinge Bakke og Diesbjerg til Skamlebæksletten og leder igennem særlige naturoplevelser og forbi interessante installationer som radiotårnet på Bolinge Bakke. Stien skal sætte fokus på, og understøtte disse oplevelser ved hjælp af subtile elementer. De besøgende orienteres via diskret skiltning, klassiske landbrugshegn og overgange, så vel som landskabelige elementer som smeltevandalen og de karakteristiske bakketoppe.

# Geocenter Skamlebæk

## Inspiring to explore

The vacant buildings of Skamlebæk radio station are transformed into an interactive Geocenter and social gathering space for local actors and associations. This will be the heart of a new Geocenter situated in the vast open area of the Skamlebæk meltwater plain surrounded by the Meltwater Mountains Bolinge Bakke and Diesbjerg. Geocenter Skamlebæk will act as a starting point for going on further exploration into the surrounding landscape and the rest of Geopark Odsherred.

## From Geo sites to Geocenter

The charming scenery of Odsherred has been the basis of the natural and cultural processes going on for at least 25000 years. This unique geological landscape highlights the ancient processes of glacial formations. Age-old human settlements are traceable back to the Stone Age with visible artefacts scattered throughout the area.

In 2014 Odsherred became Denmark's first Geopark. This became a great opportunity for the municipality of Odsherred to communicate and utilize the many qualities of the iconic landscapes and cultural history the area has to offer. Unfortunately, the Geopark is still unknown to many of the residents in Odsherred and visitors are unclear of what and where the Geopark actually is.

As it is now, the Geopark communicates its qualities through geo sites, where one or more qualities are especially evident. The Geocenter can function as the place from where to convey an understating of the Geopark as a whole.

Cultural history, geology and biological process will come together in an understanding of their intertwined evolution and the relation to our past and present time.

## The heart and the landscape

The Buildings of Skamlebæk Radio station will provide the space needed for Geopark related activities such as, exhibitions, tours, educational work and knowledge exchange. The buildings are administrated by the Geopark, and from here visitors can learn about the qualities of the Geopark and get inspired to investigate further through permanent and temporary installations.

The meltwater plain functions as a big public space from where you have access to the surrounding landscape and the coast. As the open heathland is scattered with old antennas, it is an interesting landscape to move around in. These antennas are part of the evolution of the surrounding landscape.

From the meltwater plain you can go on further exploration into the meltwater mountains of the Vejrhøj moraine ridge by a new path. The path moves over the open landscape of Skamlebæk Meltwater Gorge. The path connects Bolinge Bakke and Diesbjerg and runs through the landscape accompanied by diverse wildlife and interesting features such as the Radio Tower and an Alder swamp. The path will integrate these features and highlight them with subtle interventions. The walking path will be orientated by discrete signs, agricultural fences and crossing boards as well as natural features such as the meltwater stream, Diesbjerg and Bolinge Bakke.





*As we begin the work of making Skamlebak Meltwater Plain open for public, it is necessary to deal with the danger of the decaying wooden constructions. To do this we have to take down some of our beloved (or hated) antennas. As this marks the first step towards the opening of Geocenter Skamlebak the event is open for everyone.*





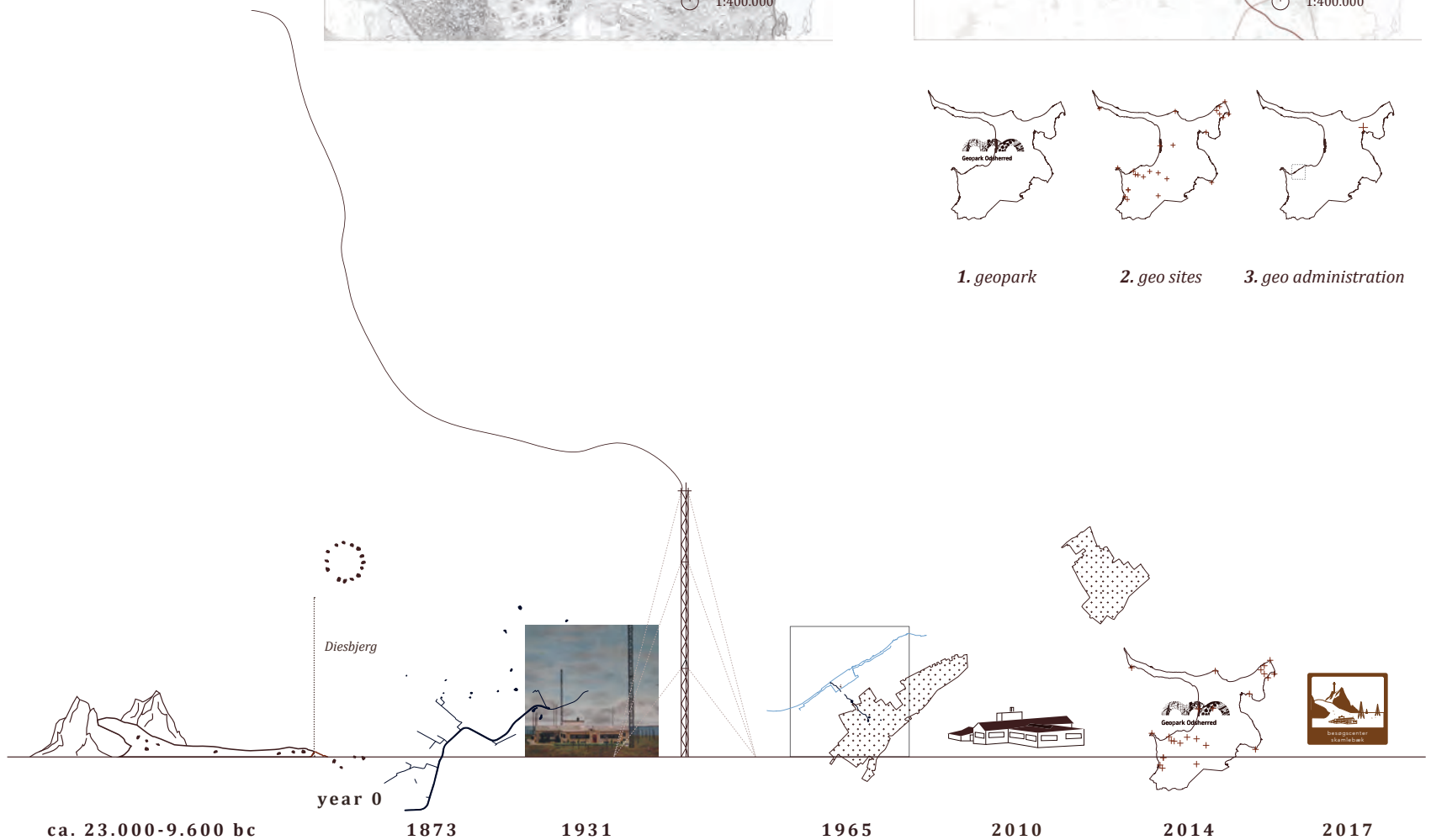
1. geopark



2. geo sites



3. geo administration



During the Weichselian ice age glacial formation and retreat created the dramatic landscape we see today.

The incredible force has pushed the glacier forward and carried geological material from northern Scandinavia to shape the moraine hills, meltwater outwash and plains of Diesbjerg and skamlebæk

Reclamation of Lammefjorden

The open plains of the meltwater outwash were the perfect location for a new radio station.

The open and empty field allowed the antennas to transmit undisturbed

Growth of the summerhouse areas accelerates rapidly in this decade. To protect the nature and landscape, areas are pointed out for preservation. These restrictions are still functioning today

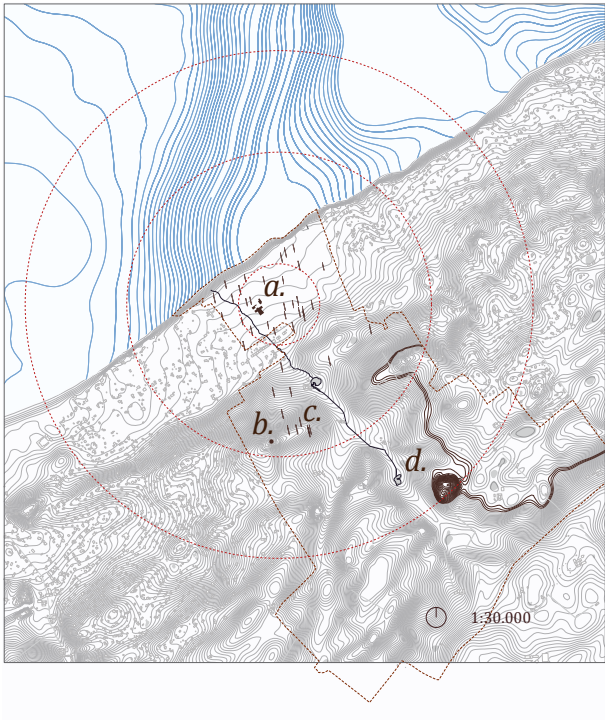
The last radio waves is transmitted – the radio station closes

As the property is deserted new users falls in love with the place. Local summerhouse owners and residents sees recreational potential in the open landscape near the coast

Odsherred becomes the first official Geopark in Denmark

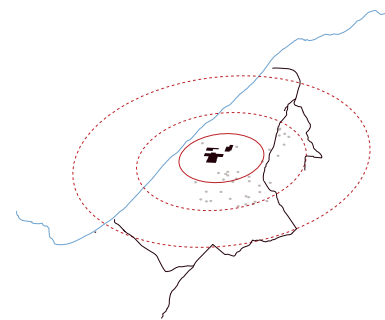
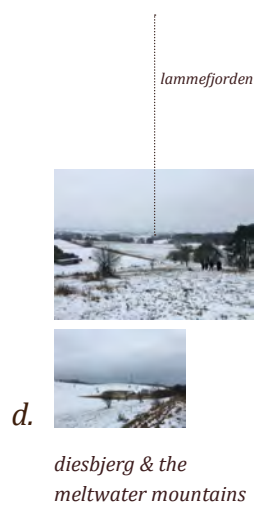
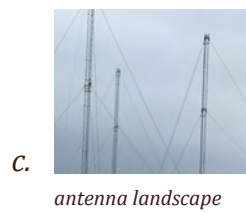
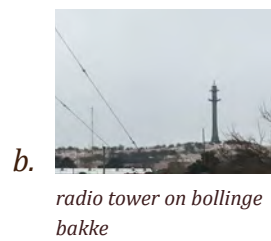
The lease for the current tenants of the radio station expires in 2017 - the future of the Radio Station and the surrounding area is unclear



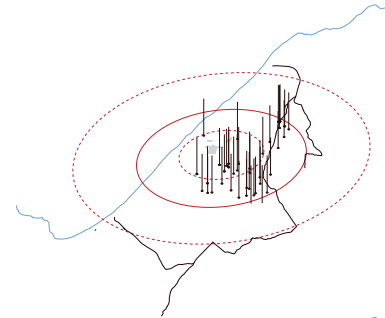


*The heart of the Geocenter is the vacant building of the Radio station which is transformed into a multifunctional visitor center and meeting place for local actors*

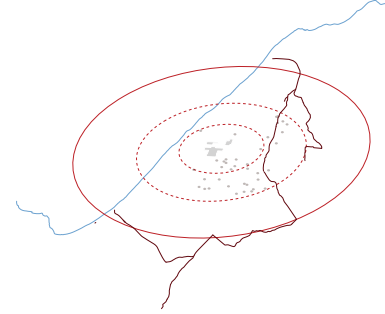
### Geocenter Skamlebæk from Radio Station to the Meltwater Mountains



**1.**  
*radio station & the meltwater plain*



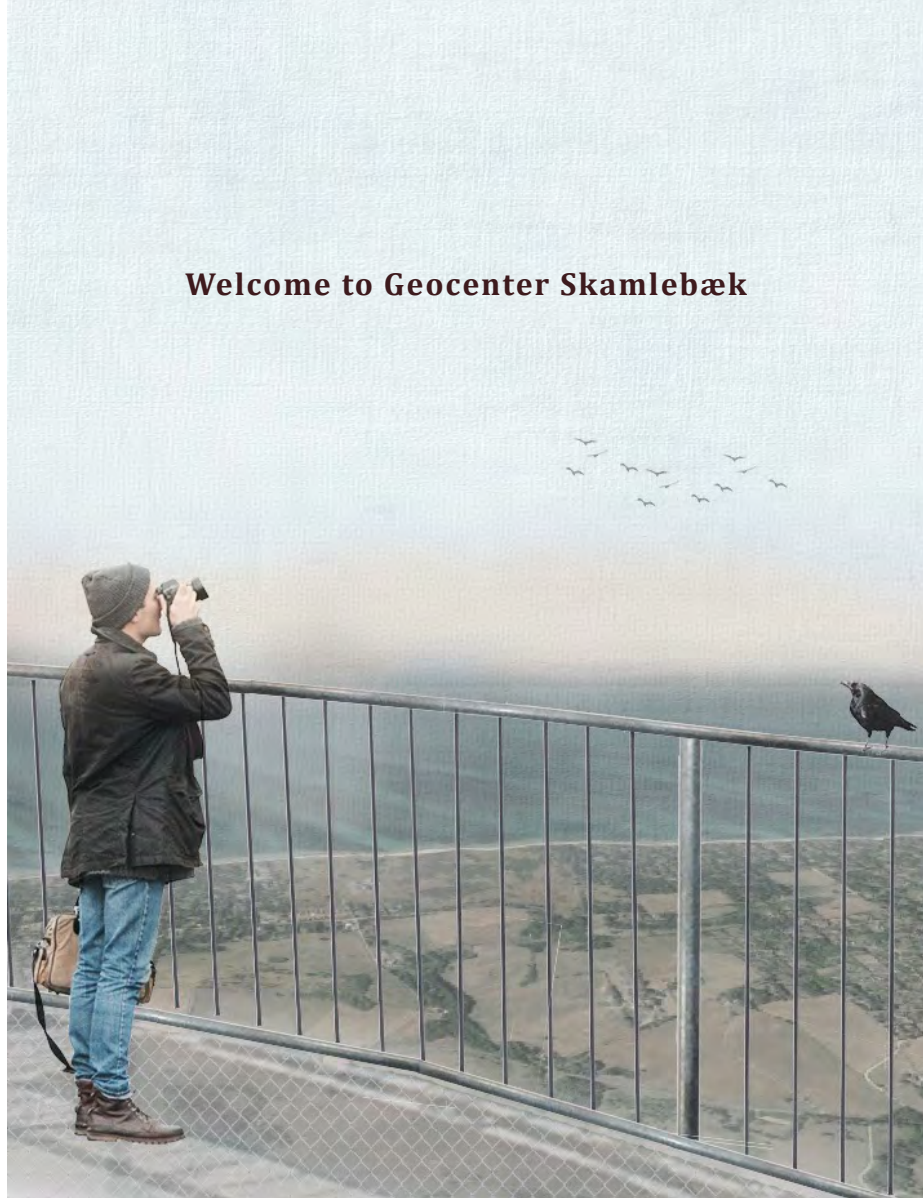
**2.**  
*bollinge bakke & the radio tower*



**3.**  
*expansion through the entire landscape*



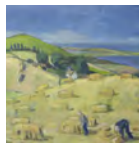
## Welcome to Geocenter Skamlebæk



*Enjoy the great view throughout the entire meltwater landscape from the top of the old Radio Tower!*

*From this spot you can see all the way from the areas highest point at Diesbjerg to the coastline along Sejro bugten!*

*The tower is open every Sunday from 12 - 14 in the summer season.*



### exhibitions

Experience the magic of Geopark Odsherred! Geocenter Skamlebæk offers both permanent and temporary exhibitions.

+ See Odsherred through the eyes of the Odsherred painters

+ The history of the reclamation of Lammefjorden

+ Bronze age in Odsherred

+ Learn about Skamlebæk radio transmitting throughout history

### events

Geocenter Skamlebæk is a natural focal point in the Geopark for events rich in nature, geology and culture both for locals and tourists

+ Harvesting the radio waves! Antenna Funeral 2017

+ Geopark festival 2017

+ Buy local food and vegetables at the farmers market

+ Naturpleje i Fællesskab : Remove gyvel and meet your neighbour

+ Join Geocenter Skamlebæk's annual Meltwater Marathon

### education

A visit to Geocenter Skamlebæk will give you both educate you and provide you with experiences to understand the biology, geology and history of the Geopark.

+ learn how to send your own radio waves

+ how and where to spot birds

+ rent Skamlebæk colony and experience the landscape with your whole class

+ explore how the glacial formations is formed

### tours

Take your pick of Geo tours and discover the Geopark through different lenses

+ go on an expedition along the ever-changing coastline

+ understand the landscape through a geo walk

+ find the orchids: a tour explaining the fascinating nature around Disbjerg

+ saddle up and explore the Geopark on a horseback

+ book your own guide

### conferences

Geocenter Skamlebæk allows you to combine meetings and conferences with exciting outside activities. A mix of business and leisure

+ exchange knowledge about the Geopark

+ teambuilding with activities and learning

+ have a conference with your local company

+ create tailored events fitting for the kind of conference you want to have

### how to get to Geocenter Skamlebæk

By car :

+ Copenhagen to Geocenter Skamlebæk : 1h 13min

+ Nykøbing Sjælland to Geocenter Skamlebæk : 24 min.

With Public Transportation :

+ Copenhagen to Geocenter Skamlebæk : 1h 43 min.

+ Nykøbing Sjælland to Geocenter Skamlebæk : 53 min

**Bus 567 & 568 from Fårevejle Stationsby stops in the middle of the Geocenter landscape!**



[Browse](#)  
**Geocenter Skamlebæks Photo gallery**



*Antenna logging 2017*



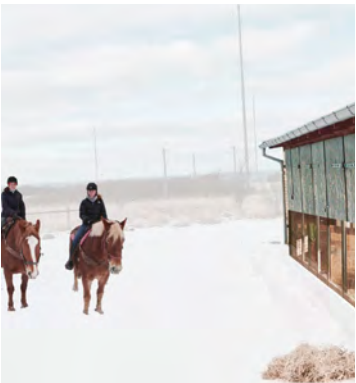
*Radio Rave*



*Birdwatching Tour  
with Bird Specialist Skarphéðinn Njálsson*



*Copper Removal Week*



*When 100 Horses Visited Geocenter Skamlebæk*



*Midnight Walk in the Meltwater Mountains*





# DRAGSHOLM VISI

*Anna Maya Handberg, Calum Thomas*





# ATOR LANDSCAPE

*as Morrison Mitchell and Lucia Moretti*



# DRAGSHOLM BESØGSLANDSKAB

Dragsholm slot og landskabet omkring Dragsholm tilbyder et unikt udgangspunkt for at besøge Geopark Ods herred og opleve hvordan mennesker har levet med et unikt landskab skabt af isen. Geopark Ods herred mangler et klart samlingspunkt. Projektet Dragsholm besøgs landskab placerer et nyt samlingspunkt i landskabet omkring Dragsholm Slot. I dette område er der mange igangværende aktiviteter og en høj koncentration af Geosites - herunder Dragsholm Slot. Dragsholm besøgs landskab vil gennem et vådområde gøre kulturhistorien mere nærværende og ydermere styrke igangværende aktiviteter.

Dragsholm har siden 1125 været en katalysator for hele Ods herred og før Lammefjordens inddæmning markerede slottet indgangen til Ods herred. Dragsholm restaurant har netop fået en Michelin stjerne. Restauranten prøver at skabe et terroir i samarbejde med lokale fødevarerproducenter; vingårde og landbrug. Dragsholm er et af de ældste slotte i Danmark og sammen med Geo info-punktet, barokhaven, arboretet og rododendronhaven er det allerede et unikt sted og en stor attraktion.

Dragsholm Slot er omgivet markante Geopark-attraktioner; Vejrhøj, Sanddobberne, Lammefjorden og Ods herred malerne, som var tiltrukket af lyset og det unikke landskab. Dragsholm er ydermere udgangspunkt for fremtidige rekreative forbindelser; Kyststien, Vejrhøj Stien og Istids Ruten.

Vandet har siden istiden været drivkraften bag udformningen af landskabet og skabt ideelle forhold for menneskelig aktivitet. Ved at bruge vandet, er det vores intention at rekonstruere det landskab som kunstnerne var tiltrukket af. Vådområdet vil derudover bidrage til at forbedre vandkvaliteten, være tolerant overfor fremtidens klimaforandringer, fremme biodiversitet, uddanne og ydermere styrke de rekreative muligheder. Dette er i overensstemmelse med UNESCO's holistiske koncept om bevaring, uddannelse og bæredygtig udvikling.

En rekonstruktion af vådområdets naturlige og vilde udtryk vil styrke Dragsholms barokke stil og fremtoning i landskabet. Vådområdet vil gøre vej og bynavne mere nærværende, da vådområdet blandt andet vil frembringe det skjulte drag ved Dragsholmvej, frembringe den gemte kilden ved Vindekilde og gøre holmen som Dragsholm er placeret på mere synlig i landskabet.

Dragsholm besøgs landskab vil gennem nedslag på særligt udvalgte steder kommunikere fortællingen om geoparken og yderligere underbygge igangværende aktiviteter i området. Nedslag som iscenesætter kulturhistorien, et fugletårn, undervisningsplatforme om Lammefjordens inddæmning, vådområdet og vilde Urter. Ydermere vil det være muligt at opleve vådområdet fra en Gislinge båd, som vikingerne brugte til at komme gennem vådområdet. Derudover vil etableringen af mindre stiforbindelser være med til at styrke det eksisterende stisystem i området.

## DRAGSHOLM VISITOR LANDSCAPE

Dragsholm castle and the surrounding landscape offers a unique starting point for visiting the Geopark Ods herred and for experiencing how people have lived with a unique landscape created by the ice. To promote and further develop these qualities we propose creating the Dragsholm Visitor Landscape. Located on a holm in the coastal plain at the foot of the Vejrhøj moraine hills, Dragsholm marks both the historical entrance to Ods herred and the passage for ships from the Lammefjord to the open sea in the Viking age.

Dragsholm has since 1225 been a catalyst and power centre for the entire region. It has originally marked the old entrance of the region, when Lammefjorden was covered in water. Recently the restaurant won a Michelin star. The restaurant tries to create a terroir in collaboration with the local food industry; wine farms and agriculture. Dragsholm is one of the oldest castles in Denmark and together with the baroque garden, the arboretum and a rhododendron garden it's an unique place and a great attraction point.

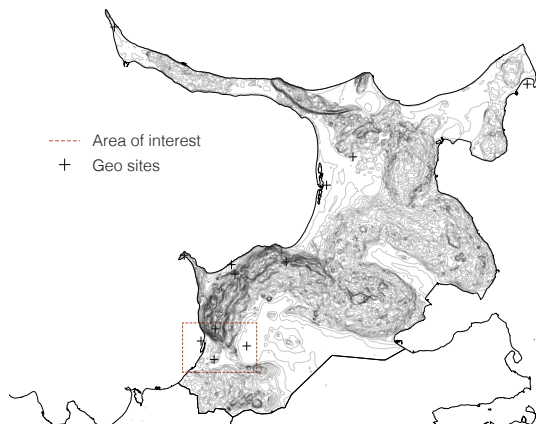
Furthermore, Dragsholm is surrounded by some of the most spectacular Geo-sites; Vejrhøj, Sanddobberne, the dammed Lammefjord and the setting of many famous landscape paintings by the Ods herred painters who were drawn to the area because of the unique landscape and light. Additionally, it will be the starting point for future trails in the geo-park; the coast-, Vejrhøj path and

ice age biking path system.

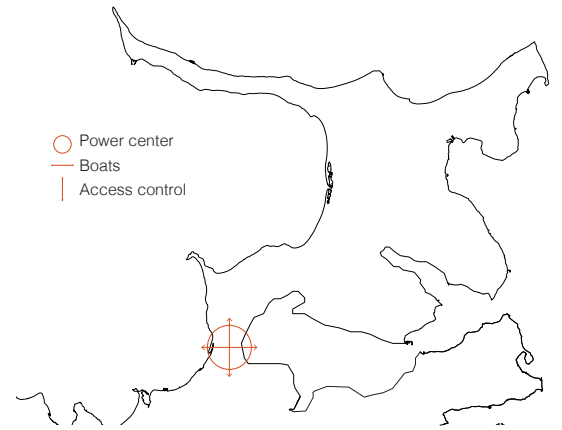
Water has through history been a main driver for the development of the Dragsholm landscape .... Today: the renovation of the Lammefjord drainage system offers a pertinent starting point for developing the Dragsholm Visitor Landscape. A new pumping station is being built to deal with rising nitrogen levels in the soil. The new wetland, planned around the canal will help to solve these issues and offer potentials for new landscape experiences whilst restoring the historical landscape at the same time.

The wetland will be integrated both with the existing landscape and surrounding activities. Six recreational spots are provided that create opportunities to experience the new qualities obtained through the wetland: a platform to stage the cultural history, a fishing spot, a bird watching tower, a gathering point for herb hunting and two learning platforms; one for the history of Lammefjorden and one for the understanding of wetland. It will also be possible to enter the wetland by boat having a chance to relive a Viking time experience. As mentioned before, the Dragsholm Canal has already been a wetland in the past and the finding of the rest of an old boat testify that the Viking used to sail through these shallow waters.

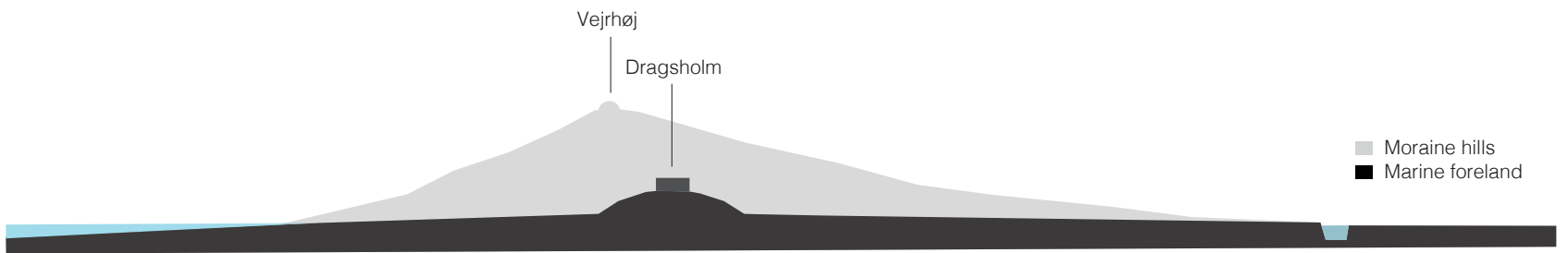




Concentration of Geo-sities around Dragsholm



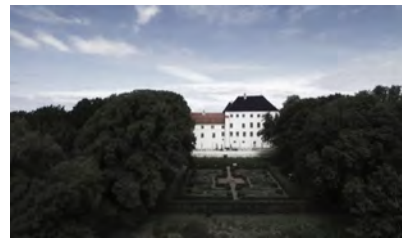
Historical significance of Dragsholm's location



1. Sanddubberne



2. Vejrhøj from the coast



3. Dragsholm castle



4. Lammefjorden farmland



Entrance from West Sealand

Entrance from Copenhagen



5. Geo-infopoint



6. Michelin star restaurant



7. Wild plant foraging tours



8. Vineyard and winery



9. Beach and camping





5000 B.C.

2000 B.C.

700

1225

1810

1842

1900

1930



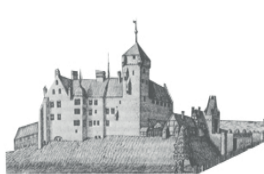
After the last iceage



Dragsholm manden



The gislinge boat



Dragsholm Castel



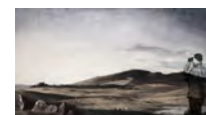
Dragsholm marked the old entrance



Lammefjorden is drained

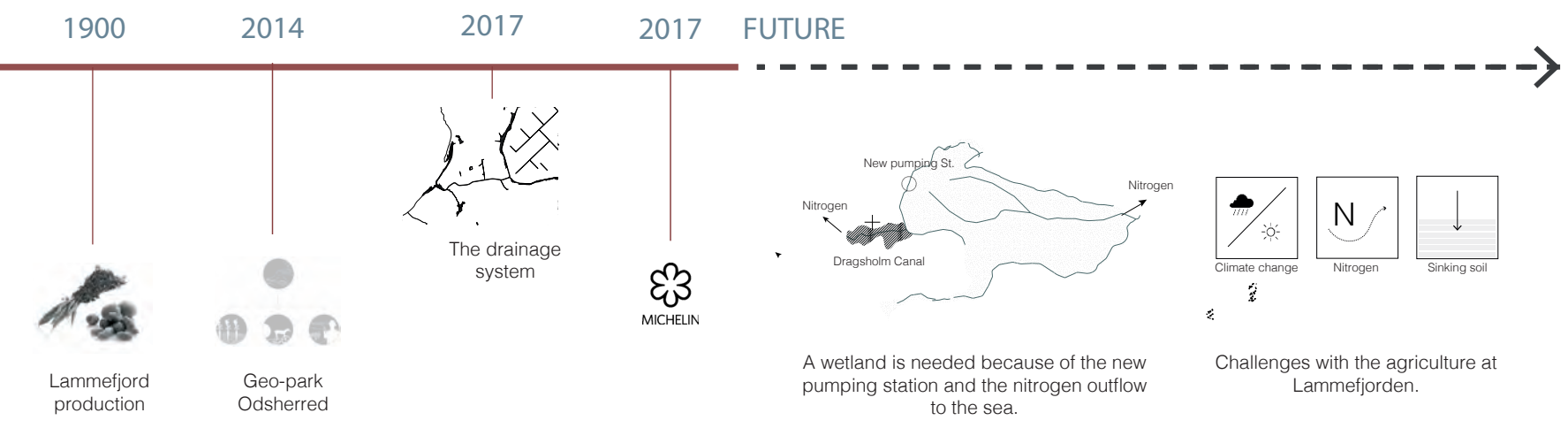


Lammefjorden is drained



The Corner group came to Odsherred







# + BIRD WATCHING TOWER



Ardea Cinera



Grus Grus



Felica Atra



Anser Anser



Birdtower

Wetland

Path

# + STAGE THE CULTURAL HISTORY



Reconstruction of The Gislinge Boat



Path

Viewpoint

Viking ship



## + THE FISHING SPOT

*"The main attraction is the active landscape"*

- Pia and Lars, summerhouse owners



Carp Gudgeons



Murray Cod



Golden Perch



Watersnake



Path

Bridge

Wetland

## + HURBHUNTING PLATFORM

*"The nature is the place where we meet each other"*

- Jan Reitov, summerhouse owner



*Typha angustata*



*Pontederia cordata*



*Sambucus nigra*



*Zizania palustris*



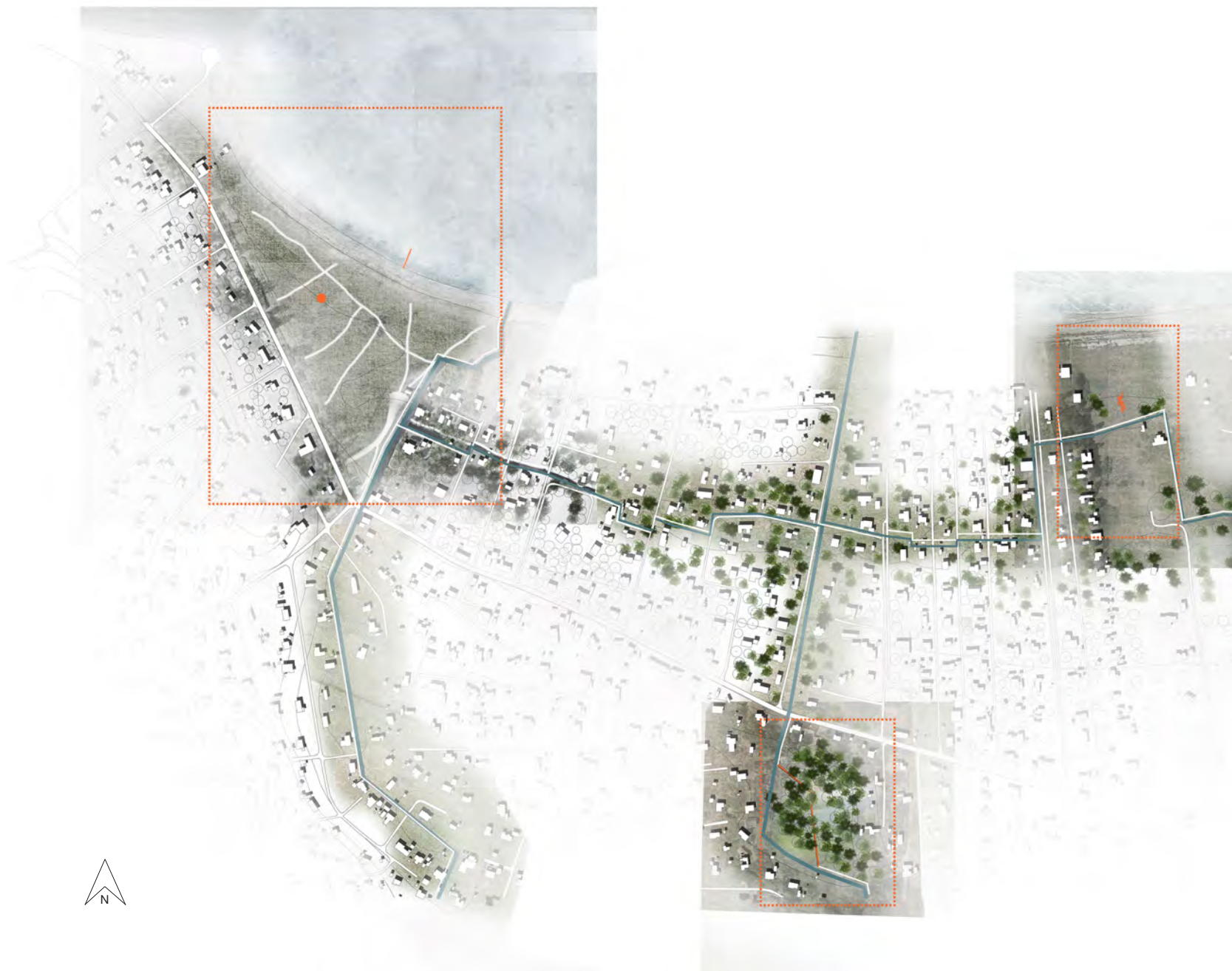
Vildekilde stream

Benches

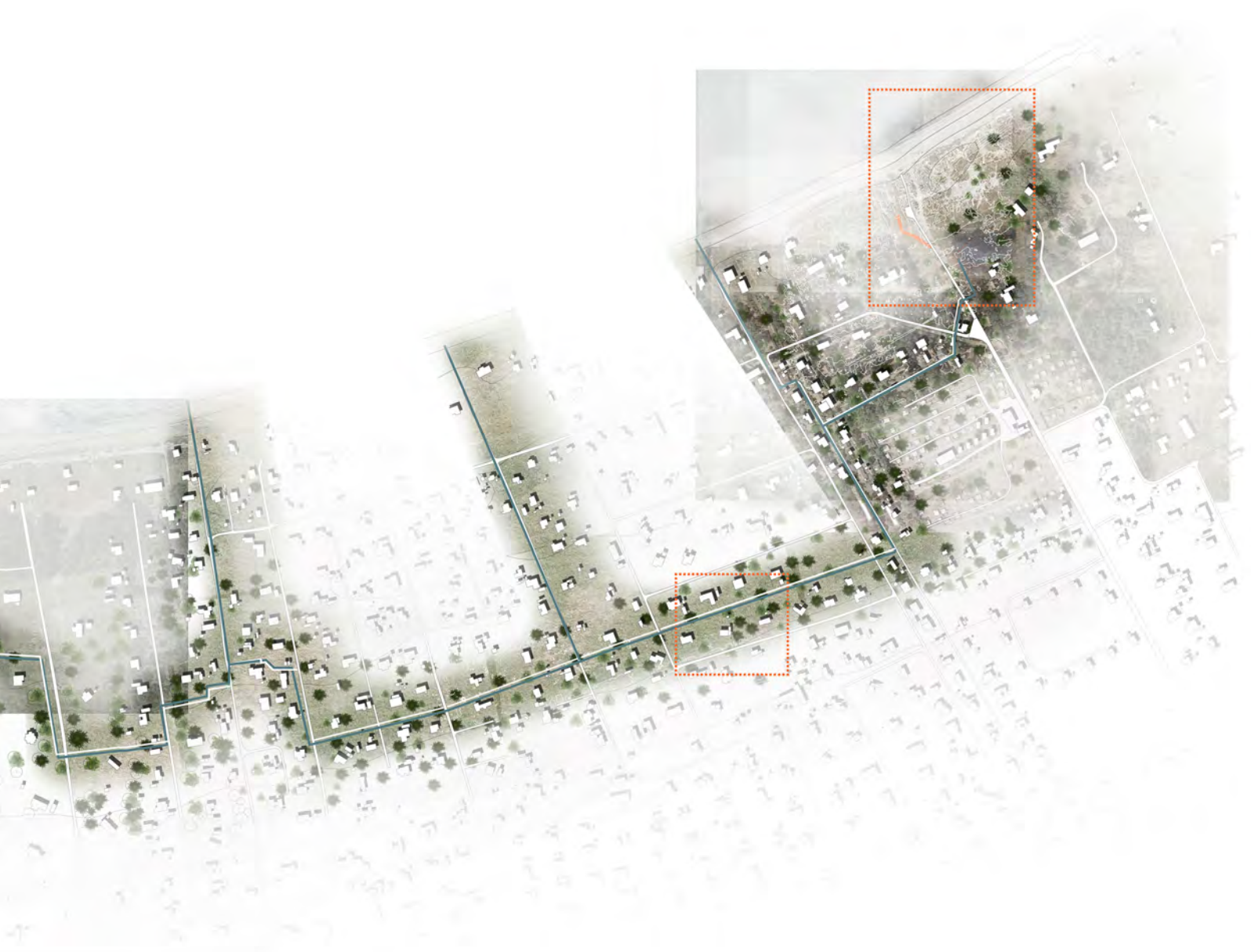


# REVEALING NORDSTRAND

Diego Chanove,  
Patricia Sandager,  
Simone Haxholm  
& Troels Friis









# GENOPDAG NORDSTRAND

“Revealing Nordstrand” er et projekt beliggende ved den nordlige kyst af Odsherred i et sommerhusområde kaldet Nordstrand. Projektet sigter mod at skabe en forbindelse fra øst til vest ved at genbruge de eksisterende veje- og sti strukturer, de eksisterende afvandingskanaler under og over jorden, og de ledige åbne rum langs kysten og inde i det tætte sommerhusområde. Interventionerne med to stedspecifikke tårne og en ny øst-vest-forbindelse vil forbedre den generelle forbindelse i området og fritidslivet for sommerhusejerne og indbyggerne i den nærliggende storby Nykøbing Sj.

Nordstrand består af to forskellige landskaber. Den geologiske landskab og det kulturelle menneskeskabte landskab.

Sommerhusområdet er placeret oven på gammel hævet havbund, som for 7000 år siden var dækket med vand. Dette har skabt et diskret “bølget” landskab, som man tydeligt oplever når man går rundt i området. Kystlinjen i bugten er dynamisk med en udvidelse af 0,5 m hvert år. Dannelsen af klitterne er hurtig og i den østlige del af området, kan man spore klitformationer tilbage til for 40 år siden.

Det kulturelle landskab er påvirket af arealanvendelsen der har været i Nordstrand op gennem historien. Mange af de eksisterende vej- strukturer er orienteret i en nord-syd-forbindelse bygget ovenpå de gamle skel veje fra da Nordstrand blev anvendt som landbrugsjord.

I år 1900 byggede tømrer Niels Frandsen et Strandhotel. Det blev bygget til Nykøbing indbyggere så de kunne nyde fritidsaktiviteter på stranden. Omkring 1960-1970'erne kom så det

store boom af sommerhuse, som ændrede det åbne landskab til et tæt bebygget område med de eksisterende afvandingskanaler under jorden, mangel på øst-vest-forbindelser og meget få ledige pladser for fritidsaktiviteter.

Filosofien bag projektet er at genbruge det der allerede er i dag og dermed ændre og tilføje så få ting som muligt, for på den måde at kunne genopdage potentialerne i Nordstrands landskab. De to interventions typer: stier og tårne - vil være et nyt lag der bliver føjet til landskabet for at løse problemerne med manglende forbindelsesmuligheder og fritidsaktiviteter i det nuværende landskab. Med en kortlægning af de tre lag; veje og stier, kanaler og ledige åbne rum, vil interventionerne placeres i fire åbne rum; Den fredede grund, Det kulturelle klitlandskab, Pajesø og Det naturlige klitlandskab, som ved hjælp af en stedsspecifik tilgang vil fremhæve de eksisterende kvaliteter i rummene.

Konstruktionerne i landskabet vil efterligne stedsspecifikke landskabs strukturer og vil fungere som platforme til at man kan opleve det geologiske landskab ved Nordstrand. Samtidig vil de have funktioner, der giver nye kvaliteter til fritidslivet, såsom en sauna der er åben for offentligheden i vinterperioden, en café og en legeplads. Stisystemet der kommer til at gå fra øst til vest, vil blive understøttet af de historiske kanal strukturer, så man langs vandkanalerne vil blive ført gennem sommerhus landskabet og de ledige åbne rum. Disse kanaler vil også forbinde den nye sti med stranden ved hjælp af de eksisterende nord-syd orienterede kanaler.

## REVEALING NORDSTRAND

“Revealing Nordstrand” aims to create a more attractive and better connected summerhouse landscape at the northern coast of Odsherred. The project will create a connection from east to west by transforming and completing the existing road and path structures along the existing drainage canals below and above ground and transform existing open spaces along the coastline and inside the dense summerhouse area into common leisure landscapes. Small focused interventions will improve the overall connectivity and the leisure life for the summerhouse owners and for inhabitants of the nearby small town Nykøbing Sj.

Nordstrand consists of two different landscapes: the geological landscape and the cultural man-made landscape. The summerhouse area is placed on top of a raised seabed, that 7,000 years ago was covered with water. This has created a subtle “wavy” landscape that you clearly experience when you walk around in the area. The coastline in the bay is dynamic, expanding by half a meter every year and in the eastern part of the area you can trace new dune formations back to 40 years ago. Most of the existing road structures are oriented in a north-south connection, build on top of old field roads from when Nordstrand was used as farmland.

In 1900 carpenter Niels Frandsen built a beach hotel in the eastern part of the area for the Nykøbing inhabitants to enjoy leisure activities at the seaside. In the 1960-70's a big boom of

summerhouses changed the farmland into a densely built-up area and most of the existing drainage canals were piped. Today there is a general lack of east-west connections in Nordstrand and there are very few open spaces for common leisure activities.

The philosophy of the project is to reuse what is there, adding as few new interventions as possible, to reveal the potentials in the landscape of Nordstrand. Few site-specific interventions will enable new leisure activities and reveal inherent landscape qualities in four today underused open spaces along the coast and at Pajesø (lake).

Two towers will offer a view over the evolving coastline to the east and west of Nordstrand. New constructions in the landscape will imitate sitespecific landscape structures and function as platforms to experience the geological landscape at Nordstrand. At the same time, they will offer new facilities for leisure life such as a sauna that is open for public during the winter, a cafe and a playground.

A new path system, going from east to west, will be established by completing existing paths along the historical canal structure, using the water to lead you through the summerhouse landscape and to the transformed common open spaces. These canals will also connect the new path with the beach by unveiling the existing north-south oriented canals.



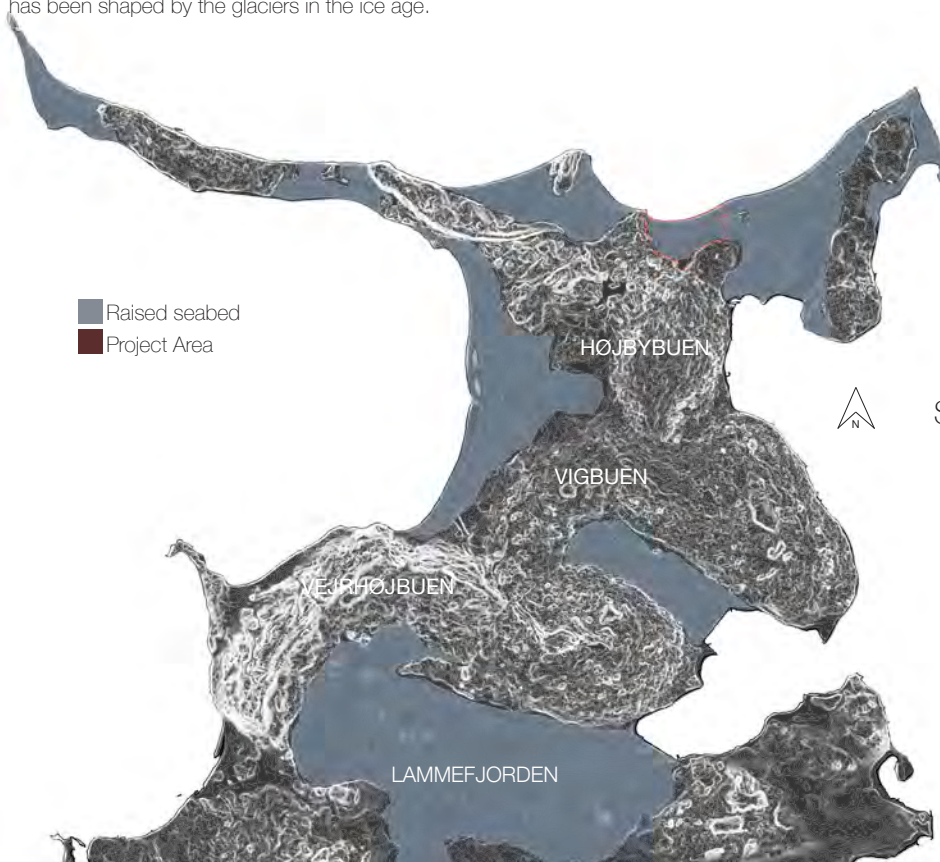


## COLLAGE

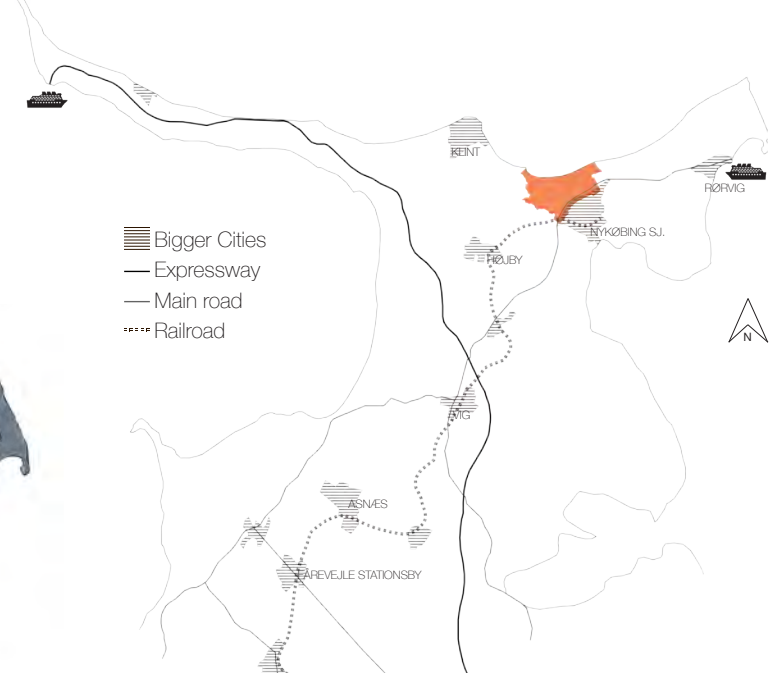
This collage is showing the different atmospheres we experienced going through the area and the connectivity we felt was lacking in the east-west direction.

## THE LANDSCAPE 7000 YEARS AGO

The diagram shows how the topography of Odsherred has been shaped by the glaciers in the ice age.



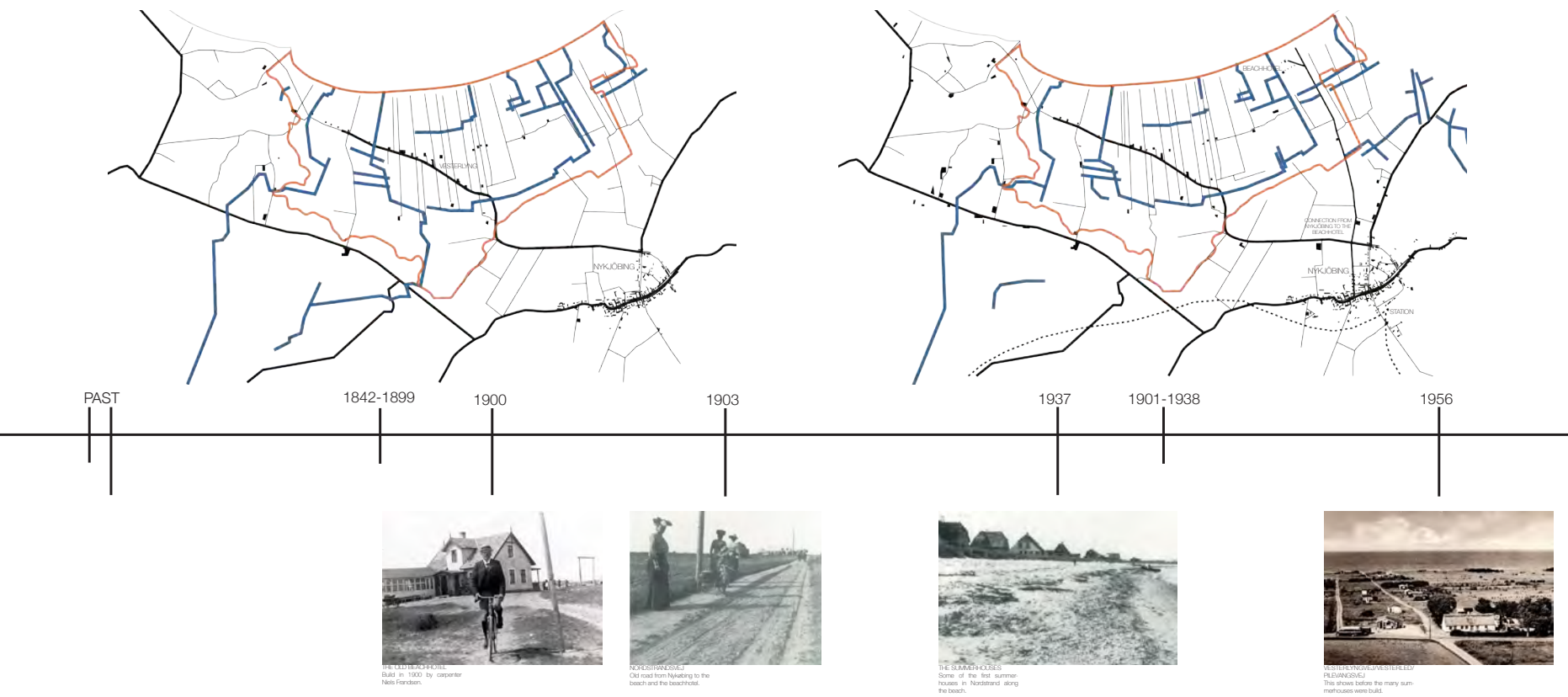
## INFRASTRUCTURE AND BIG CITIES



## SUMMERHOUSE AREAS





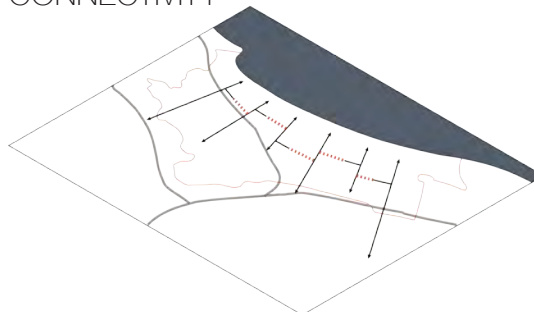


## VACANT SPACES



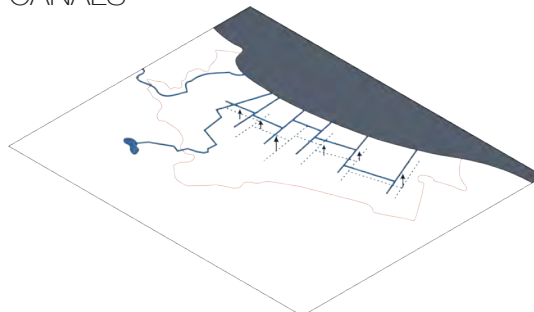
Through analysis we have found some vacant places, some vacant lots, some already public spaces, which can be turned in to a more interesting leisure landscape.

## CONNECTIVITY



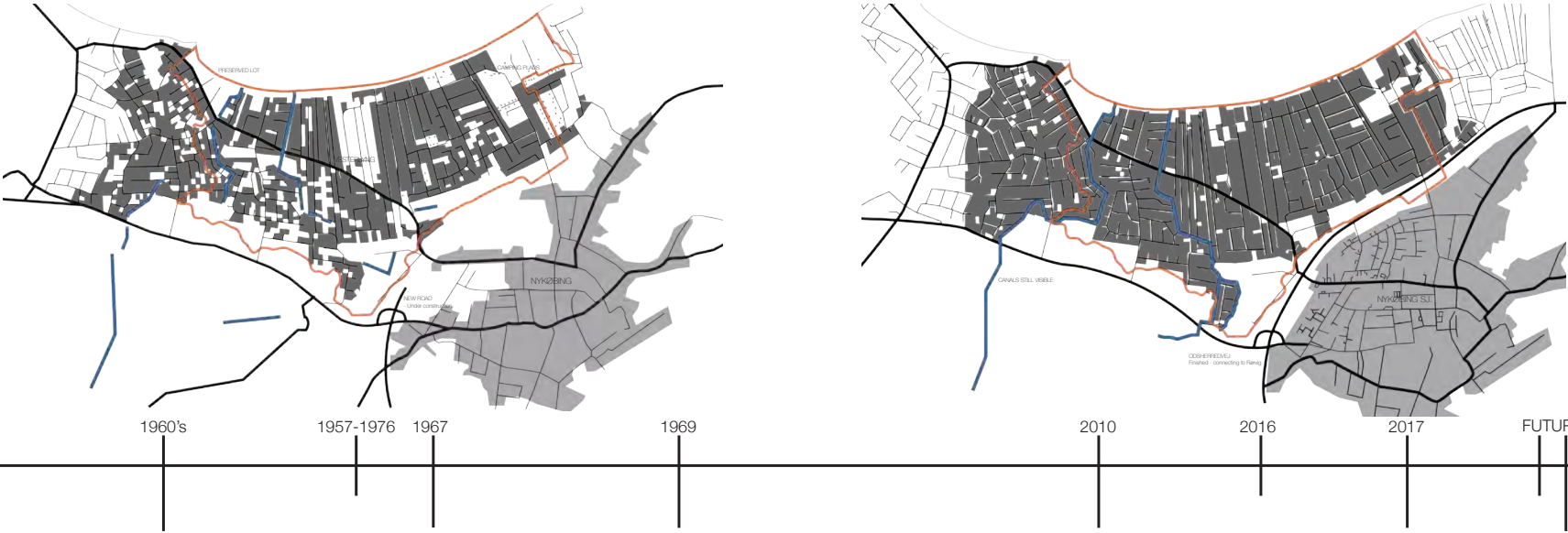
Through analysis we found that there is several connections, leading north-south, but the east-west connection is lacking. Therefore a new connection is introduced.

## CANALS

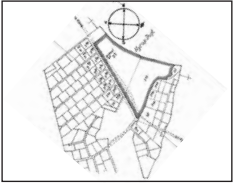


Analysis of the development of the project area, shows that there are several canals underground. Some of these will be reintroduced to help generating a new east-west connection.





**THE CAMPING SITE**  
The campsite opened first in the 1960s.



**CONSERVATION**  
In 1967 two lots were handed over to municipality with one condition, that they should be preserved, so that the population could have free access to the beach. They are today still empty.



**SEMMERHOLMSS**  
In the 60's and 70's the building of summerhouses exploded, and the area is almost totally built today.

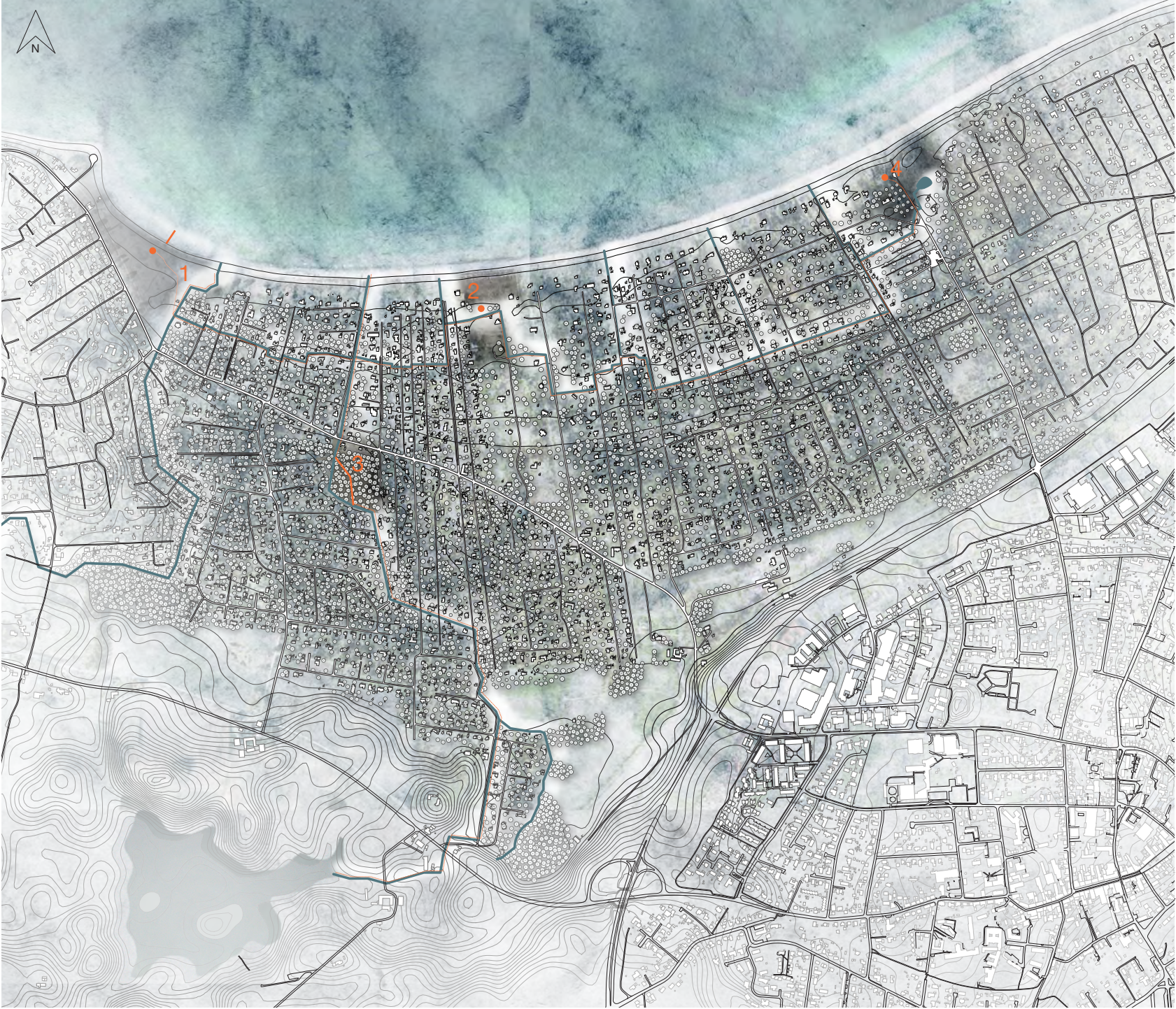


**THE PIER**  
Every summer there is built a pier, going out from the water side in the western part of Nordstrand. It started in 2010, and every winter it is taken down again, because it can not cope with the harsh winter weather.



**CROSSROADS**  
The big road (Osteholmsvej) that is going all the way to Rønne, is a major barrier to the connection between Nykøbing S. and Nordstrand.

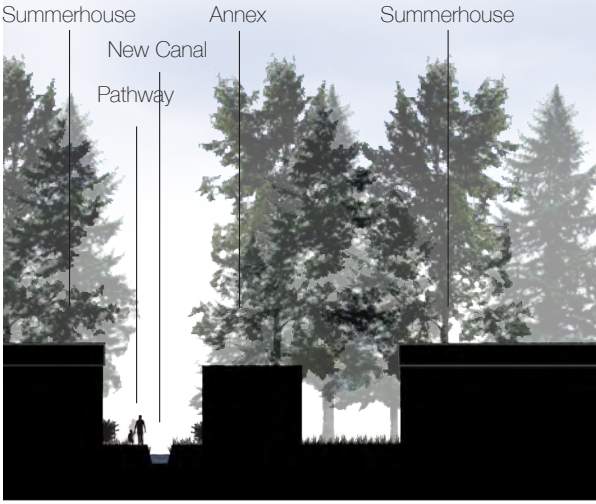
MASTERPLAN 1:12,000





PATHWAY ALONG THE CANAL

To create a new east-west connection through Vesterlyng, the old canals will be raised, as well as new ones will be added. Along these new canals, there will be introduced a new path for pedestrians and bicyclists. The new path will be placed between summerhouse lots and will be connecting to existing roads. The paths will also lead you trough Vesterlyng and along some vacant open spaces, where there will be different interventions.

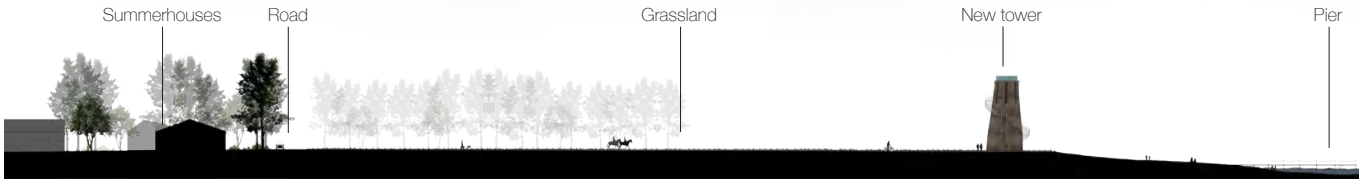


1:500



AREA 1 - THE PRESERVED LOT (WEST)

The preserved lot used to be two summerhouse lots, which belonged to an old lady. When she passed away, she gave her lots to the municipality to use these lots for public use. The municipality tore down the buildings, and since then it has become an open area, with mainly low vegetation. Every summer, a group of summerhouse owners come together to build a pier on the beach along this area, which is removed again for the winter. In this area we have decided to create a new tower. The purpose of the tower is to create a viewpoint, from which you can see the old coastline, further in the land. Inspired by the temporary pier, the tower will also function as a sauna during the winter. This can spark winter bathing activities by this area, to match the summer activities.



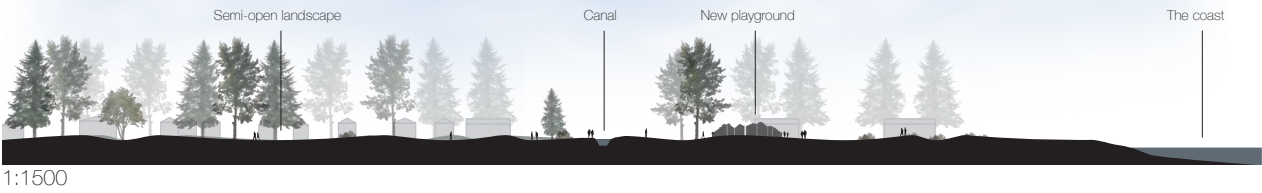
1:1500





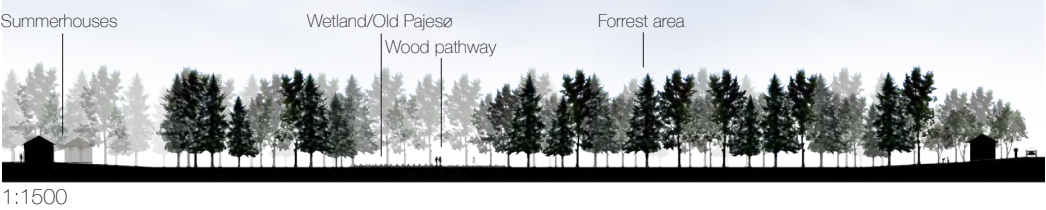
AREA 2 - THE PLAYGROUND AREA

Today this area is consisting of empty lots, which have a central location, along the beach in our project area. We suggest to introduce a playground in this area, to create a place where visiting families can be "together apart". This expression was introduced to us in a lecture by Lea Holst Laursen, where she presented a survey (Future Holiday Home) from summerhouse areas in Jutland, which among other things showed that families visiting summerhouses want the ability to go to a place, where the children can play, while the parents can relax. Placing a playground near the beach can create the this possibility.



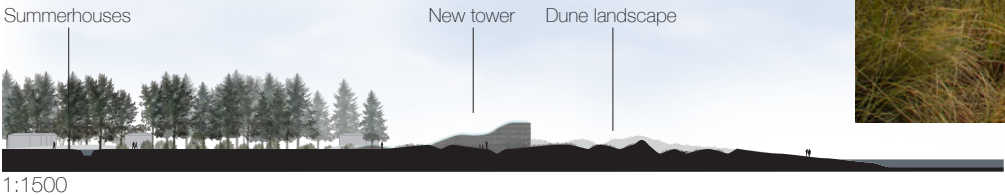
AREA 3 - PAJESØ

Pajesø is a dried out lake placed in our project area. Pajesø is located by the canal leading out of our project area to Næsholm castle ruin. Today the area is heavily vegetated with a small clearing, which we will use to create a different atmosphere. In this area we will create a boardwalk through the trees into the clearing, creating a calming experience.



AREA 4 - THE DUNE LANDSCAPE (EAST)

This area has been chosen due to the significant landscape. The evolution of the dunes is very clear in this area, and has created a landscape which is unique to our project area. In the summer it is used by visitors to the beach, who place themselves in the dunes, and the nearby camping site and the public parking lot generates a vibrant atmosphere. This is why we have decided to place a tower at this location, to replace the existing lifeguard tower. The new tower will resemble the dunes, and can be used for café or ice cream shop, as well as being a viewpoint, from which visitors can experience the landscape from a new and different angle.





# Engfjorden

Malene Almind

Michal Laszczuk

Ina Maria Weinreich

Ke Xu









# Engfjorden

Et af Odsherreds mange økonomiske grundlag bygger på flere landbrug i inddæmmede fjorde. Disse er bestemt til en usikker fremtid, i lyset af klimaforandringer, forurening og naturlige processer. Denne usikkerhed er udeladt fra historien om de inddæmmede fjorde i Geopark Odsherred, hvor den menneskelige opfindsomhed opfattes som en kraft, der altid vil være i stand til at opretholde et landbrugslandskab, der giver uendelige fordele. Men virkeligheden beretter om problematiske kvælstof og fosfor udledninger, synkende jorde og fremtidige havstigninger. Transformationer i stor skala må nødvendigvis indføres for at imødekomme disse problematikker.

Naturstyrelsen har lavet planer for udviklingen af et vådområde mellem Vig og Sidinge Fjord for at reducere de årlige kvælstofudledninger med 9 tons til Isefjorden. Projektet har udelukkende fokus på minimeringen af kvælstof selvom andre positive tiltag, såsom øget biodiversitet og rekreative oplevelser, kunne være blevet overvejet i samme betragtning. Dette giver inspiration til udviklingen af et design, og en strategisk plan, der foreslår opførelsen af endnu et vådområde kaldet Engfjorden, som både adresserer miljømæssige faktorer, rekreative aspekter, biodiversitet og adgang strategisk. Ydermere vil vi sikre adgang fra Vig med en Engfjordssti der leder den oplevende igennem et nyt landskab.

Vig som er kendt for sin årlige musikfestival er en by i vækst og med en stigende befolkningskurve er der behov for at investere i rekreative muligheder uden for byen, som i dag er forholdsvis begrænset mod den østlige side. Barrierer som rute 21 gør adgang til Sidinge Fjord svær og urealistisk. Med den nye sti vil vi give en forbindelse til den sydlige kanal under rute 21 for at eliminere denne barriere. Stien tjener til at styrke en nyfortolkning af det tidligere fjordlandskab, hvor brugerne

# Engfjorden

This project proposes to rework the water system of Sidinge Fjord to create a better balance between nature and agricultural interests, improve resilience to climate change, and create a more attractive landscape with better access for residents and visitors. Sidinge Fjord is synonymous with one of the economic foundations of Odsherred, agriculture, which is rooted in a landscape that is destined to have a precarious future in light of unsustainable land use practices. The prospect of this uncertainty is shunned from the story of the reclaimed fjords in the Geopark Odsherred, as human ingenuity is perceived as a force that will always be able to maintain an agricultural landscape that provides endless benefits. But the reality is that with rising nitrogen and phosphorus emissions, sinking soil, and sea level rise, large scale transformations must be introduced in the future.

The Nature Agency has created plans for the development of a wet meadow between Vig and Sidinge Fjord to reduce annual nitrogen emissions by 1% into Isefjord, without taking any other associated benefits into consideration. This sets a foundation for the development of a design vision and strategic plan that builds upon the Vig Wet Meadow, addresses local challenges, and proposes the construction of a second wetland called Engfjorden (Fjord Wet Meadow) to make nitrogen reduction introduce a more diverse array of benefits to the area.

The adjacent town of Vig has experienced growth in recent years; however, there are little opportunities for recreation beyond the town, and barriers, such as Highway 21, create issues for accessibility into Sidinge Fjord. The Vig Wet Meadow would provide an opportunity for recreational opportunities supported by Engfjordssti (Meadow Fjord Trail) , which would allow

vil kunne få en flydende, sammenhængende oplevelse af et nyt vandmiljø. Imellem de to vådområder vil stien følge de eksisterende kanaler for at fremhæve vandets forløb. Fra Vig til Engfjorden vil dette stisystem fornye og forstærke fjordens landskab med henvisning til sin historiske form.

Engfjorden vil reducere op til 1.3 % af de årlige kvælstof emissioner til Isefjorden. Ved at omdirigere den nordlige kanal til laveste kote -4 og -3.5 meter under havets overflade, vil det nye vådområde i sit fulde areal måle 110 hektar. Det meste af den eksisterende landbrugspraksis vil stadig kunne fortsætte ved opførelsen af et nyt dige, som forhindrer oversvømmelse af tilstødende jord.

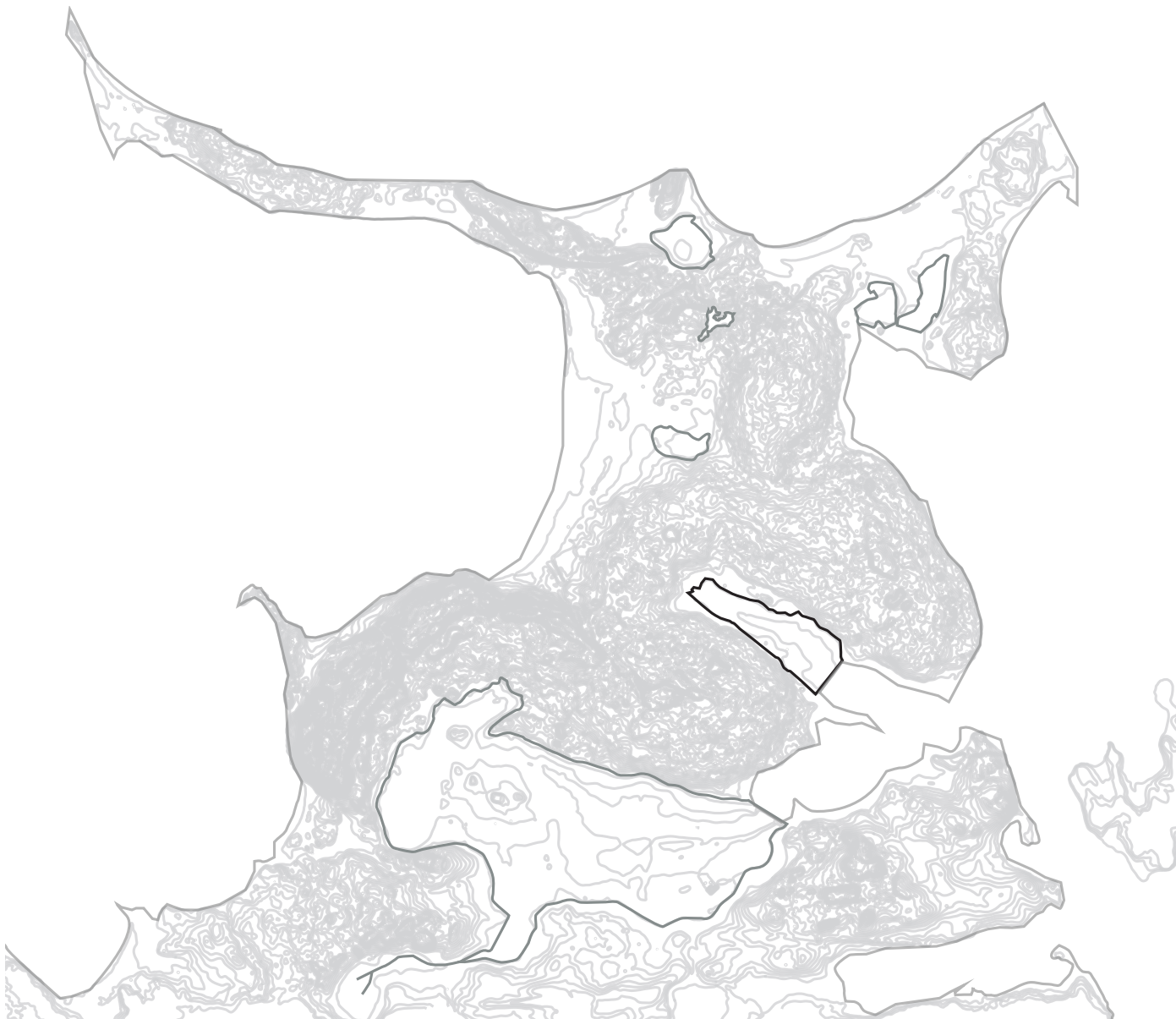
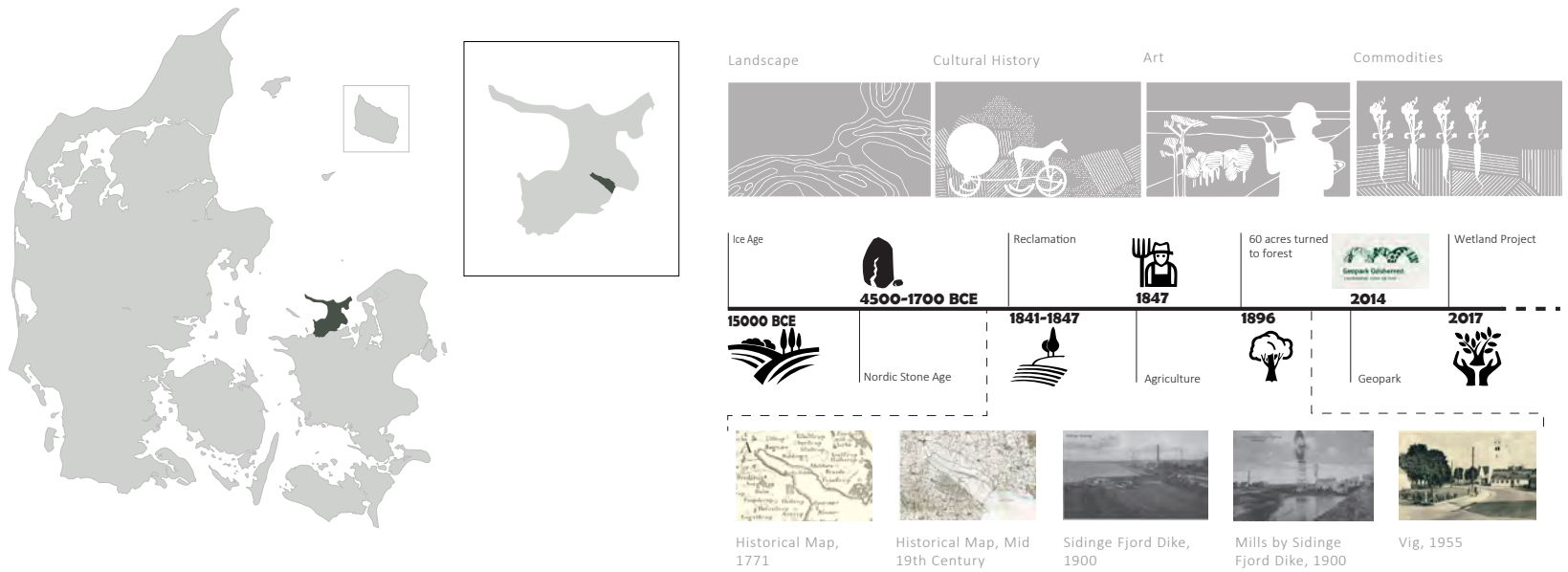
Ved Egebjergvej ud til Isefjorden vil vi øge det eksisterende dige en meter for at forhindre fremtidige hav oversvømmelser. Endvidere introduceres nye lette skovbeplantninger rundt omkring i det nye fjordlandskab og i strækninger mellem Grevinge skov og det nye vådområde. Dette for at skabe grønne korridorer til glæde for dyreliv og for at skabe et mere varieret mangfoldigt landskab.

Projektet vil skabe en ny fortælling i historien om Geopark Odsherred, der har undersøgt, hvordan miljømæssige spørgsmål kan blive en katalysator i diversificeringen af oplevelser, der har undersøgt hele spektret af landvinding i Sidinge Fjord.

users to experience a new ecological landscape. The trail would also provide a connection by the southern canal underneath the highway to eliminate this barrier. The trail serves to strengthen the entire re-interpretation of the former fjord landscape, where users will find new ties to a seamless experience of a new aquatic environment. In between the two wetlands, the trail will be situated alongside the existing canals to further strengthen this experience. From Vig to the Sidinge Fjord dike, the trail would emphasise the renewed presence of water witnessed in the wetlands.

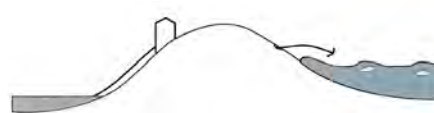
Engfjorden will help reduce a further 1.3 % of annual nitrogen emissions into Isefjord. By redirecting the northern canal in the fjord to the lowest sector, measuring -4 and -3.5 metres below sea level, a new wetland will be created measuring 110 hectares. With less than half of the reclaimed fjord transferred over to redevelopment, under the ownership of only 1 farm, agricultural practices could continue in the other farms with the construction of a berm, preventing the flooding of adjacent land. Apart from the denitrification initiatives, this project will provide an opportunity to heighten the Sidinge Fjord dike by one metre to adapt to rising sea levels in the future and more specifically prevent the influx of sea water into the wet meadow. Furthermore, adjacent to the wetland, a mixed forest and meadow landscape would be developed to encourage connections between existing ecological patches.





#### Climate Change

Sea level rise (20 to 140 cm in 100 years) is expected, coupled with an increase in extreme weather events (Miljøministeriet, n.d., p. 16).



#### Eutrophication

Nitrogen and phosphorus emissions from agricultural practices lead to decreasing levels of oxygen in Isefjord, thus harming aquatic life.

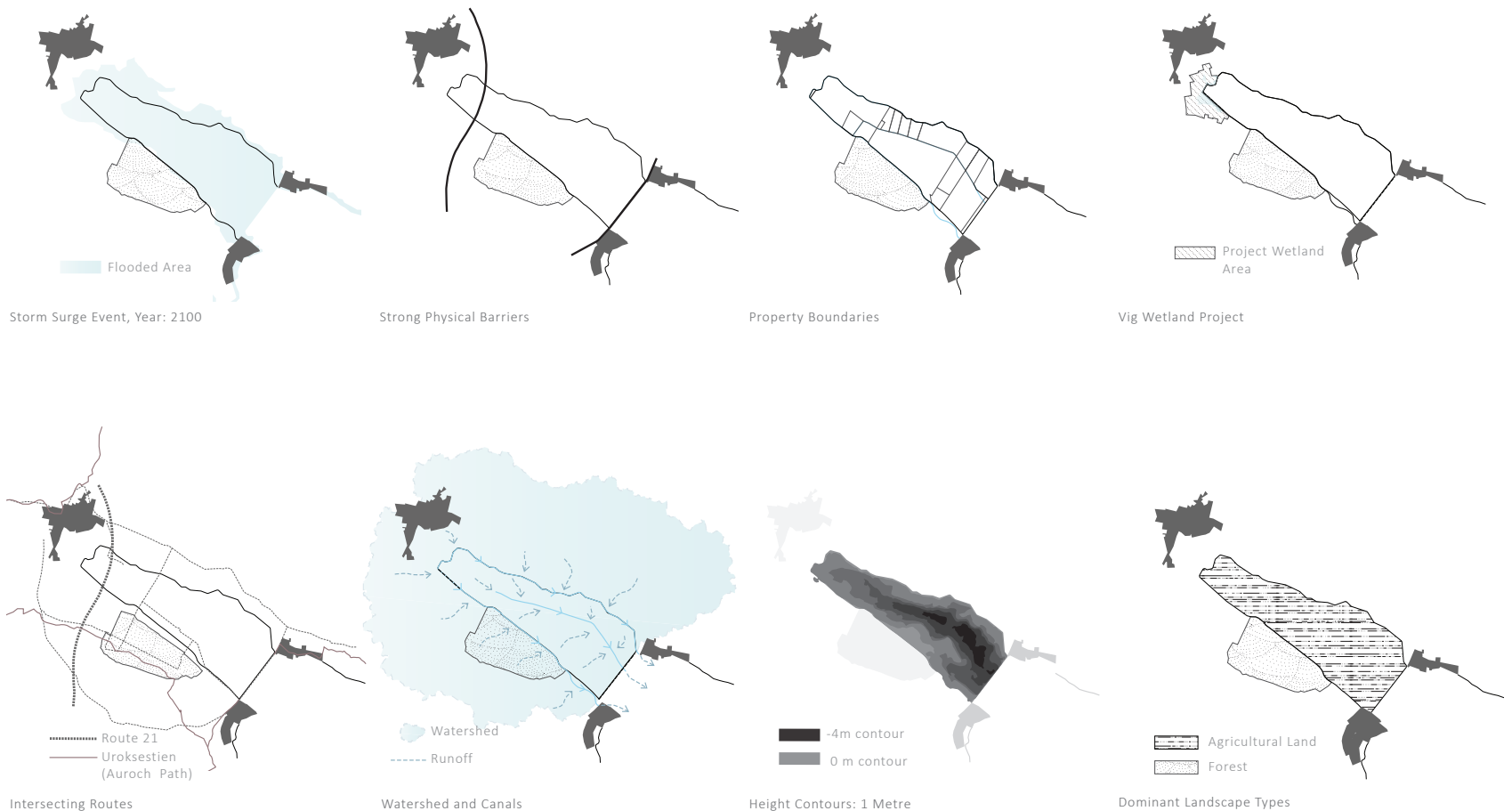
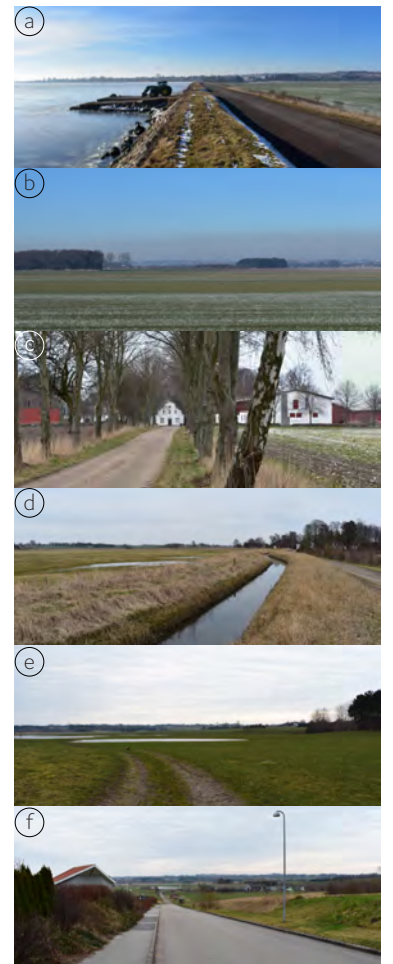
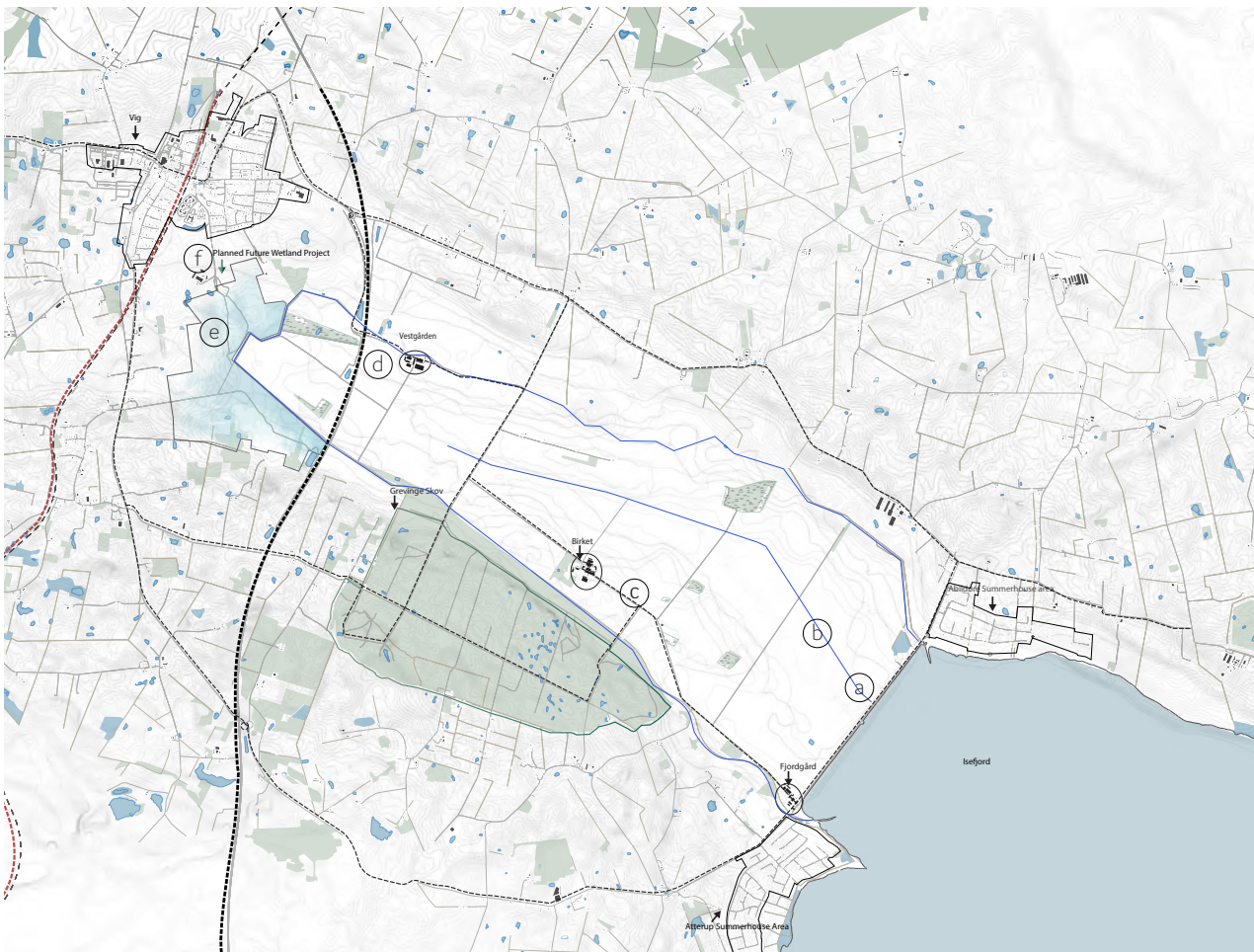


#### Sinking Soil

The soil will sink about 100 cm in 100 years ("New Project Lammefjorden to benefit Isefjord," 2014).

Geopark Odsherred seeks to recount the many legacies of glacial history and human settlement in the region, and the story that is told rarely ventures into the issues that will challenge the very foundation of Odsherred's economy in the future. Of the four themes included in the Geopark, Commodities focuses on the optimal growing conditions, agricultural diversity, and the developing fine dining scene in the region. The local pride in the many benefits of land reclamation for commodities will only be bolstered with the further development of the Geopark, while the many deep seated environmental consequences and challenges facing reclaimed landscapes remain ignored in the story that is currently emphasized. At Sidinge Fjord, the critical missing piece of this story will be revealed.





Although the entirety of Sidinge Fjord has a sense of coherency as a reclaimed landscape, people in Vig and the surrounding summerhouse neighbourhoods have a limited relationship with the area. The dominance of agricultural land and barriers, such as Route 21, also prove to provide mental barriers, where people cannot experience a meaningful attachment to the land beyond agriculture. A drive to make the landscape more sustainable can also foster other initiatives to reconnect people with the reclaimed landscape.



Naturstyrelsen/Nature Agency 

Project: Wetland Reclamation (77 hectares)

Goal: Reduce annual nitrogen emissions into Isefjord by 1% (9 tonnes)

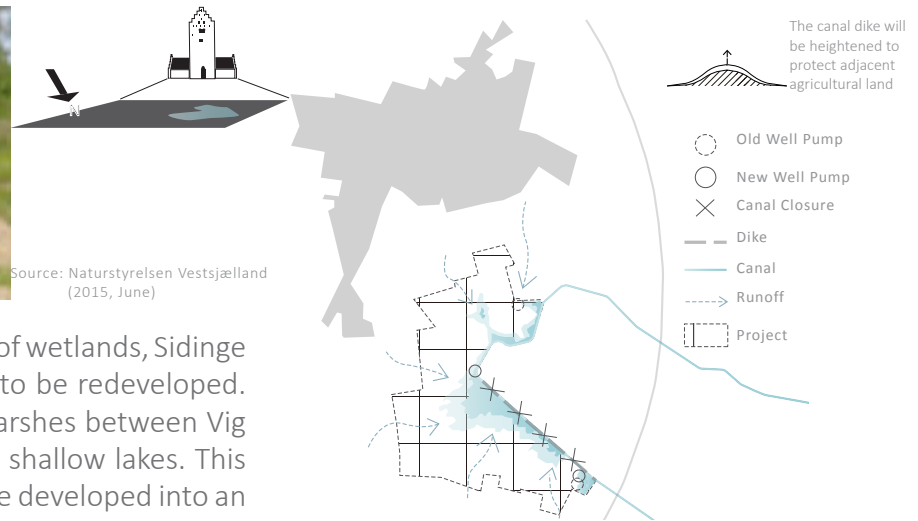
Strategy: Collect water runoff and close 2 pumps and a part of the southern channel.

Project budget: 9.2 million kr

Timespan: 2007-2018

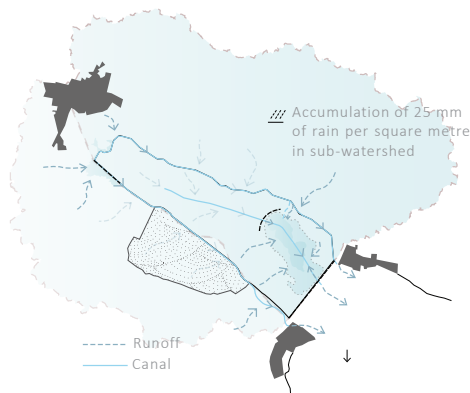
Project Manager: Jens Peter Simonsen

In the future, as part of a national scheme to redevelop 18 km<sup>2</sup> of wetlands, Sidinge Fjord has been designated as one of 13 areas that are poised to be redeveloped. This project is a true reclamation, as 77 hectares of drained marshes between Vig and the former fjord will be developed into wet meadows and shallow lakes. This project provides the foundation upon which Sidinge Fjord can be developed into an even more sustainable landscape.



Section A-a: View of the Vig Wet Meadow along the future Engfjordsstien, near the limits of the town. The project will allow farmers to buy back the land and allow cattle to graze by the wet meadow.

### Creating A Wetland / Sustainability



- A further 1.4 % of annual nitrogen emissions into Isefjord (11 tonnes) would be reduced with the development of Engfjorden. \*
- The entire wet meadow is designed to store around 60 cm of water.
- This is the accumulation of 25 mm of water that falls per square metre of soil surface in the canal sub-watershed, required to flush out nitrogen.
- A canal will be dug to direct water from the northern canal to Engfjorden.
- The existing dikes surrounding the central canal will be mostly removed to direct water into the -3.5 and -4 contours that define the perimeter of the wet meadow.
- After staying in the wetland for an average period of 7 days (Chang et al., 2012), nitrogen will seep through the underlying humus soil or evaporate into the atmosphere, and the water will flow out to Isefjord through an outflow culvert.

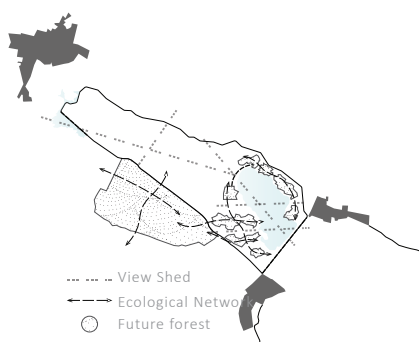
\* Calculations were done with the generous support provided by Mark Taylor Randall, PhD fellow at the Section for Landscape Architecture and Planning at the University of Copenhagen.

### Strengthening Accessibility / Connectivity



- Engfjordsstien will connect Vig with the two wet meadows and Sidinge Fjord, and it will also allow the user to explore a renewed presence of water across the reclaimed landscape.
- The trail will traverse across the distinct edges of the different landscape types to reinforce the artificiality that actually exists in the naturalized wet meadows, canals, and forested meadow area.
- Separate lanes for bikes and pedestrians are provided in order to ensure that a diversity of users can enjoy the trail at different paces of movement.
- Engfjordsstien will increase accessibility to the landscape and introduce a renewed relationship with the cultural landscape.

### Altering Forest / Biodiversity



- Some of the core landscape ecology principles, developed by Dramstad et al. (1996), are adapted into the project to foster biodiversity by creating connections for wildlife.
- By using existing and introduced forest patches as corridors and stepping stones in a meadow landscape matrix, this portion of Sidinge Fjord will allow for a greater diversity in plant and animal species.
- This meadow landscape matrix will be designed in a way where view sheds are introduced in order to maintain the open landscape character of the reclaimed landscape in certain areas.
- This way, one can have a direct visual relationship between Vig and the Sidinge Fjord Di, while also appreciating the diversified landscape character that will be developed with this project.

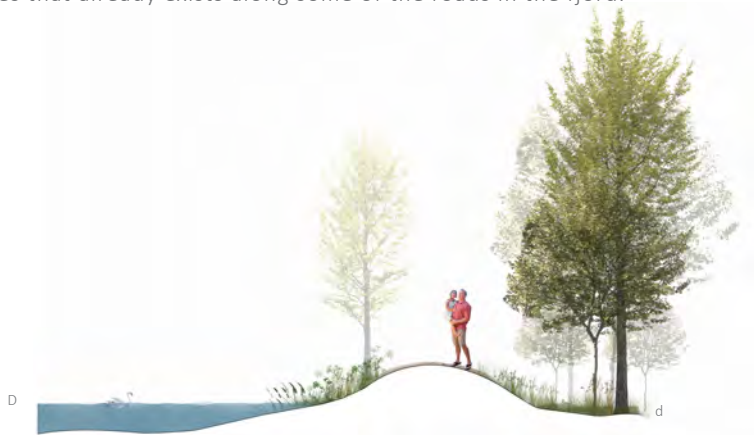




Section B-b  
Since the Vig Wet Meadow will involve the closure of a portion of the northern canal, Engfjordsstien can be situated under the former canal bridge under Route 21 to allow people to cross this barrier.



Section C-c  
Allées are planted across the portions of the trail that are not directly situated in the wet meadows. The species are primarily native and their selection is based on the trail surroundings. In drier areas, like the middle of the fjord by the canal, species like European aspen (*Populus tremula*) are chosen, while by Engfjorden, more wet-tolerant species, like white willow (*Salix alba*), are planted instead. The allées will help create smaller ecological corridors and will compliment the existing allée cultural landscape features that already exists along some of the roads in the fjord.



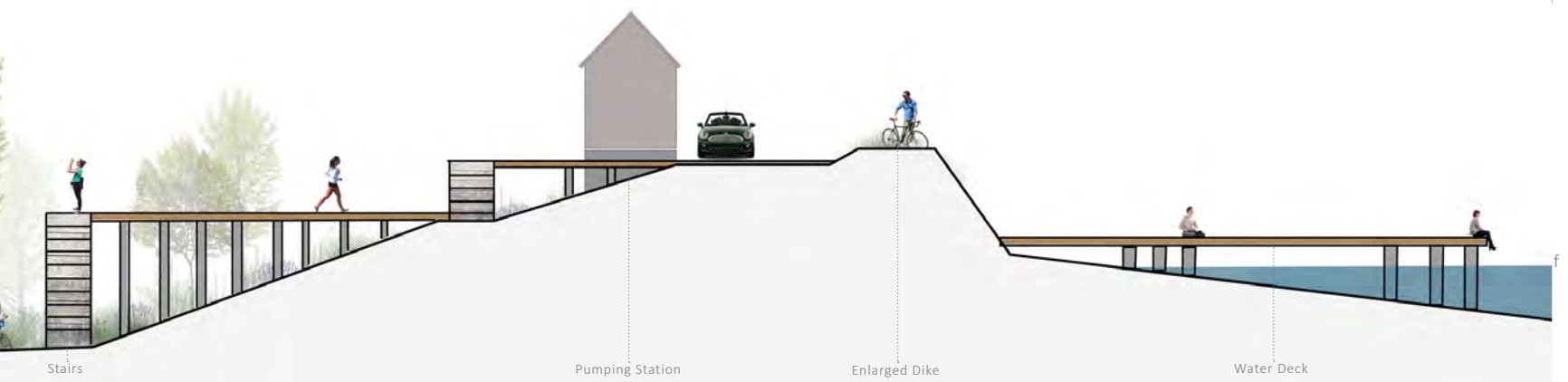
Section D-d  
The topography is raised by 1 metre to create a berm at the border between Engfjorden and existing agricultural fields to ensure that they will not get flooded as portions are situated within the lowest contours in Siding Fjord. This will ensure that a diversity of landscape types can co exist in area.



Section E-e  
Upon the boardwalk in the wet meadows, people will be able to experience changing water levels across the seasons and better appreciate a renewed presence of water within this reclaimed landscape.







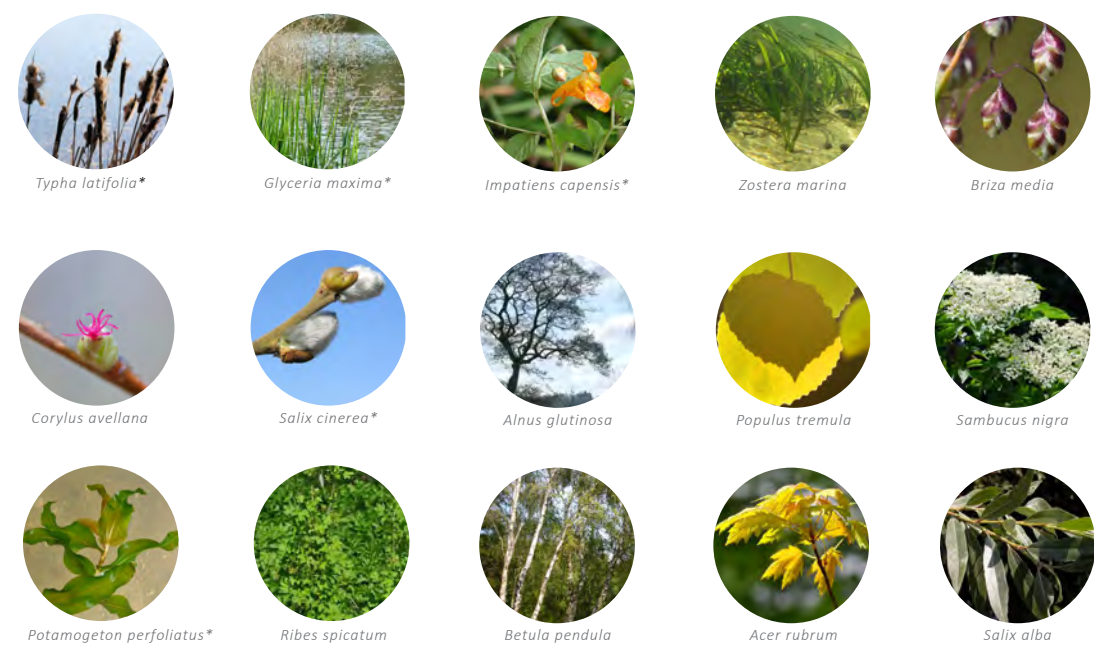
## Section F-f

The Sidinge Fjord terminus of Engfjordsstien is defined by a deck that stretches across the different levels of the dike. This allows people to appreciate the dramatic differences in topography and also foster a new relationship with Isefjord.





View of Engfjorden from Bern



Some of the planted species are most effective in reducing nitrogen, according to a study made by Alldred and Baines (2016). These plants aid in the process of denitrification through absorbing nitrogen in the water and facilitating its settlement in the humus soil layer at the bottom of the wet meadow. These species will also contribute to fostering biodiversity in the wet meadow by attracting waterfowl, amphibians, and small mammals.

\*Plants that increase the rate of denitrification



Section G-g

Educational Art Piece

At the Vig terminus of Engfjordsstien, users will be introduced to the history of Siding Fjord and its current situation through an educational art piece, shaped like the topography that defines the local landscape. The trail will be aligned right by agricultural fields, in order to bolster the presence of diverse landscape types by the trail and respect the current land uses that define local attachment to Siding Fjord.





View of Engfjorden from the Dike by Egebjergvej



Current View From the Dike by Egebjergvej

With Engfjorden, Sidinge Fjord will be transformed in a way in which the essence of the reclaimed agricultural landscape will be maintained with the use of sight lines and the protection of important cultural landscape features including the Sidinge Fjord dike and pumping station. This will allow for a landscape that is vested with so much local pride to remain meaningful to people in a state that builds upon denitrification initiatives by bolstering sustainability and landscape diversity in a variety of ways.

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Vig



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